ALBERTA PETROLEUM ROYALTY GUIDELINES

PRINCIPLES AND PROCEDURES

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1.0 PRINCIPLES AND PROCEDURES OVERVIEW

1.1 Authority and Scope

The Principles, Procedure and Appendices (commonly referred to as the Guidelines) are issued to assist operators and participants in determining crude oil royalties and royalty exemptions and reductions. The Alberta Petroleum Royalty Guidelines interprets the relevant energy legislation (statutes and regulations) and the Minister's discretion. The *Regulation* relating to these Guidelines is the *Petroleum Royalty Regulation* (*AR 248/90*, as amended).

The Guidelines describe the principles involved in assessing, levying and collecting Alberta's Crown royalty share of crude oil produced from lands under a Crown lease agreement. It also describes the procedures for carrying out the assessment, levy, and collection of royalty. Certain associated programs that allow for an exemption or reduction of oil royalties are included. These are as follows:

- Reactivated Well Royalty Exemption
- Third Tier Exploratory Well Royalty Exemption
- Experimental Project Petroleum Royalty Reduction
- Low Productivity Well Royalty Reduction
- Horizontal Re-entry Well Royalty Reduction

These Guidelines reflect the policies and procedures as of February 1, 1999. Industry will be notified of any changes occurring after that date. In case of a conflict, the *Mines and Minerals Act* and the *Regulation* take precedence over these Guidelines.

1.2 Crown Ownership of Crude Oil

The Crown owns approximately 80% of the subsurface mineral rights (includes petroleum and natural gas) in Alberta. As established in the *Mines and Minerals Act* and Crown agreements, the Crown has the right to receive an owner's share (Crown royalty share) of the minerals produced and recovered under a Crown agreement. The amount of Crown royalty levied on crude oil is established in the *Petroleum Royalty Regulation* (*AR 248/90*), and volumes are taken in kind by the Crown.

The Crown interest percentage (Crown's ownership of crude oil produced from a well-event) is based on the area of the Crown agreement that lies within the drilling spacing unit for the well-event, as compared to the total area of that spacing unit. Depending on the Crown/non-Crown ownership of the petroleum and natural gas rights from which production is obtained, this percentage varies from 0% (no Crown agreement within the drilling spacing unit) to 100% (Crown agreement covers the entire drilling spacing unit). Where a unit agreement exists, the Crown interest percentage is determined according to that agreement, as set out in Exhibit A.

The mineral ownership and lessee ownership of crude oil processed in the tank battery may be common or may vary widely. In practice, crude oil produced from a well-event is processed as follows:

- At a tank battery to which no other well-events are connected (a single well battery),

or

- In a common tank battery together with crude oil from other well-events (a pro-rated battery).

The royalty on marketable crude oil recovered through processing at a tank battery is determined and assessed on a well-event(s) basis, and according to the following:

- Single well battery — measurement of the marketable crude oil produced and recovered from the well-event.
- Pro-rated battery — pro-rating the measured marketable crude oil to the well-events(s) from which it is produced and recovered.

1.3 Crown Royalty Share of Crude Oil

The objectives of the crude oil royalty regime are:

- To ensure the Crown receives a fair share of the Crown minerals (crude oil) produced. This share is determined by leaving industry with a competitive profit incentive to develop resources.
- To ensure Alberta's fiscal royalty regime is stable and predictable. Industry knows the rules and can assess the economics of exploration and development to carry out business planning.
- To ensure the design of the crude oil royalty regime meets the objective of least administrative cost to industry and government, while providing enough detail to ensure a fair share can be collected for the province.

1.3.1 Point and Time of Determination

The Crown royalty share is determined at the wellhead of the well-event from which the crude oil is obtained. Crown royalty applies to all crude oil produced and recovered, and is based on the Crown's percentage interest in the lands to which oil produced from the well-event(s) is attributed. It is calculated monthly, and is based on well-event production that is reported by the well operator to the Alberta Energy and Utilities Board (EUB).

1.3.2 Determining the Crown Royalty Share

The Crown royalty share of marketable crude oil is the portion of crude oil obtained in a month from a well-event that is subject to a Crown agreement. It is calculated as follows:

The quantity of marketable crude oil obtained at the wellhead of the well-event from which the crude oil is produced and recovered

multiplied by

The Crown royalty formula for the marketable crude oil

multiplied by

The Crown interest percentage for the subject well-event

The Crown royalty share may be reduced under the authority of the Regulations that provide for royalty reductions or exemptions (see section 2.0).

NOTE: Crown royalty formulae and the calculation of the Crown royalty share are described in Appendices A, B and C.

1.3.3 Crude Oil Crown Royalty Statement

Crude Oil Crown Royalty Statement packages are issued to each operator who had actively reported in the current month (i.e., the December package would contain information up to and including the October production month). The standard package contains three reports:

- First report — a summary report giving the total net royalty liability for each operator.
- Second report — a breakdown by battery of the operator royalty liability.
- Third report — a list of the producing wells for each battery and the royalty liability or prior adjustments for these wells.

The package includes two additional reports for operators who submit data associated with an approved enhanced oil recovery scheme. Appendix I contains sample copies of each report.

Operators should use the Crude Oil Crown Royalty Statement to confirm their royalty and production figures agree with the Crown numbers. Any discrepancies should be investigated.

A detailed breakdown of the information contained in the package is given below.

Operator Summary for Current Processing Period (Appendix I-1)

Description — Details on the current month/prior period adjustments included in the summary.

Gross Crown Royalty — The operator's total gross Crown royalty liability for the current month/prior period(s).

Crown Royalty Reduction — The operator's total Crown royalty reduction(s) for the current month/prior periods.

Net Crown Royalty — Gross Crown royalty minus the Crown royalty reduction.

Operator/Battery Current Month Summary (Appendix I-2)

Battery Code — A 7-digit numeric code assigned by the EUB and reported by the operator on Form S1.

Total Production — Production of all wells connected to the battery for the current month, including any prior adjustments.

Crown Production — Percentage of total production volumes for the battery that are the Crown's.

Gross Crown Royalty — Total Crown royalty volume prior to any royalty volume reductions for the battery.

Net Crown Royalty — Gross Crown royalty for the battery minus the Crown royalty reduction for the battery.

Effective Net Crown Royalty Rate — Average Crown royalty rate (%) for all batteries on the statement.

Operator/Battery Current Month Detail (Appendix I-3)

Unique Well Identifier — A 16-character code assigned by the EUB to a well to give it a unique identity (e.g., 100102003008W402). This will appear on operator statements as 00-10-20-030-08W4-0.

Total Production — Gross monthly production reported to the EUB by the operator.

Crown Percent — The Crown portion of area within a drilling spacing unit for a well-event as compared to the total area of that spacing unit.

Crown Production — The well-event's total production multiplied by the applicable Crown percentage.

"A" Factor — Percentage of new oil that applies to the well-event.

Density (DEN) — **H** equals heavy oil (900 kg/m^3 or >). **L** equals non-heavy oil (<900 kg/m^3).

Gross Crown Royalty — Crown's royalty share of well-event production.

Crown Royalty Reduction — Volumes of royalty reduced based on incentive benefits.

Code (CD) — Applicable benefit adjustment (Appendix I-6).

Net Crown Royalty —Crown royalty for the well-event minus the Crown royalty reduction for the well-event.

Oil Operator Statement for EOR Relief (Appendix I-4)

This statement summarises EOR relief details by period and scheme for the operator/battery. The statement provides the operator code, battery code, scheme number and the Crown royalty reduction volumes for third tier, old and new oil.

Scheme Level EOR Relief Statement (Appendix I-5)

This statement summarises EOR relief details by battery(ies) within a scheme for a period. The statement provides the scheme number, battery(ies), the gross Crown royalty volumes for third tier, old and new oil production by battery(ies), the relief ratio for the scheme, the EOR relief reduction volumes and a list of all the wells connected to the scheme.

2.0 CROWN ROYALTY EXEMPTIONS AND REDUCTIONS

2.1 Background

Periodically, the Crown implements programs to encourage exploration and recovery of petroleum and natural gas in Alberta. These programs usually focus on extending the productive life of mature wells and discovering new reserves of petroleum and natural gas. A benefit of the program is the reduction of the Crown's royalty share of production from eligible well-events.

2.2 Permanent Royalty Features

The programs that are currently part of the crude oil royalty regime are summarised below. Appendices D and E contain a detailed description of the eligibility requirements and benefits for each feature.

Reactivated Well Royalty Exemption (Appendix D)

The Reactivated Well Royalty Exemption *(AR 352/92)* encourages production from wells that are currently not producing. It provides a royalty exemption on the first 8,000 m^3 of eligible oil produced from all well-events in wells that have been shut in for 24 production months and are reactivated on or after October 1, 1992. If a substance was produced from a well in an isolated occurrence during the qualifying period (i.e., test production), the Minister may, on application, exclude the substance for qualifying purposes. In addition, eligible production from "old oil" vintage well-events will be certified as "new oil" vintage at the end of the royalty exemption period.

To be eligible, production must be from a pool penetrated by the well at the time of reactivation. Production from pools penetrated after reactivation is not eligible.

If the monthly well production rates remain consistently above 121 m^3 per month after qualifying under the program, the Minister may require the operator to provide documentation for any work performed in relation to the well. If this documentation is not provided, the royalty benefit may be revoked.

Third Tier Exploratory Well Royalty Exemption (Appendix D)

The Third Tier Exploratory Well Royalty Exemption *(AR 16/93)* encourages exploration and development of new reserves by exempting eligible production from Crown royalty. The maximum program benefit is $1,000,000, multiplied by the Crown interest in the well ***or*** the exemption from Crown royalty for 12 production months, whichever occurs first.

This feature applies to any oil or oil sands well spudded after September 30, 1992, that is classified by the EUB as:

- *new field wildcat (NFW)* or *new pool wildcat (NPW)*, in which case the exploratory interval extends from the surface to the total depth of the well, ***or***
- *deeper pool test (DPT)*, in which case the exploratory interval extends from the base of the deepest established pool to the total depth of the well.

Experimental Project Petroleum Royalty Reduction (Appendix E)

The Experimental Project Petroleum Royalty Reduction encourages the use of new technology in recovering crude oil. The maximum Crown royalty rate for eligible production is 5%. This program applies to any oil well included in an experimental scheme, as approved by the EUB, for a period specified and approved by the Minister under the *Regulation (AR 65/92)*.

Low Productivity Well Royalty Reduction (Appendix E)

Under the *Regulation (AR 350/92)*, the Low Productivity Well Royalty Reduction encourages additional production from low productivity wells. After the qualification date, royalty is capped at 5% for up to 16,000 m^3 in aggregate crude oil or oil sands production from each eligible well.

The qualifying period is 12 consecutive months ending in September, October, November or December 1992, ***or*** 24 consecutive months ending in January 1993 or later. Eligible wells cannot produce more than 121 m^3 in any month during the qualifying period, and average monthly production must be 73 m^3 or less during the last 6 months of the qualifying period.

If the monthly well production rates remain consistently above 121 m^3 per month after qualifying under the program, the Minister may require the operator to provide documentation for any work performed in relation to the well. If this documentation is not provided, the royalty benefit may be revoked.

Horizontal Re-entry Well Royalty Reduction (Appendix E)

The Horizontal Re-entry Well Royalty Reduction encourages the recovery of oil from mature pools. The Crown royalty rate for eligible production is capped at the rate set for the average production volume for the most recent 12 months in which production occurred before re-entry. If a well has a 12-month production average of less than 184 m^3 per month, the royalty cap is one-half the rate that would otherwise be charged on the incremental volume that exceeds the average.

This feature applies to any horizontal extension approved under the *Regulation (AR 348/92)*, as follows:

- horizontal drilling began on or after October 1, 1992, ***and***
- occurred at least 5 years after the finished drilling date of the original wellbore from which it extends.

Enhanced Oil Recovery Royalty Relief (Appendix E)

The Enhanced Oil Recovery (EOR) Royalty Relief encourages optimum recovery of oil reserves through tertiary recovery techniques. Under the *Regulation (AR 348/93)*, the Crown shares in certain incremental costs of EOR production by forgoing royalties on a portion of the incremental tertiary production. The oil royalty reduction for an EOR scheme is reported monthly to the scheme operator as part of the Crude Oil Crown Royalty Statement under "Scheme Level EOR Relief" (sample report in Appendix I). Royalty relief for EOR projects is authorised under *section 11* of the *Petroleum Royalty Regulation*.

Detailed procedures for this feature are contained in the 1994 Conventional Enhanced Oil Recovery Royalty Guidelines, which is available from the Department of Energy (DOE).

2.3 Past Crown Royalty Features

Although the following are closed to further eligibility, production from specific well-events may continue to receive Crown royalty benefits.

- ***Horizontal Well Petroleum Royalty Reduction*** *(AR 96/91)* (expired December 31, 1996).
- ***Development Oil Royalty Holiday*** (expired March 31, 1996).
- ***Exploration Oil Royalty Holiday*** (expired March 31, 1996) — replaced by the ***Third Tier Exploratory Well Royalty Exemption***.
- ***Reactivated Well Incentive*** (expired March 31, 1998) — replaced by the ***Reactivated Well Royalty Exemption***.

- ***5% Oil Royalty Rebate*** (*section 9, Petroleum Royalty Regulation*) excludes natural gas liquids injected on or after January 1, 1994, making them ineligible for benefits. The payment process is unique to this benefit and is handled by the EOR administrative process rather than the Alberta Crude Royalty administrative process.

3.0 OTHER FEATURES ADMINISTERED FOR CRUDE OIL ROYALTY

3.1 Crown Offset Obligations

Where an offset drilling obligation occurs, the DOE will serve the Crown lessee (or lessees) with an offset notice. An offset drilling obligation results when a spacing unit in a Crown lease, in which the title to the petroleum or natural gas is owned solely or in part by the Crown, or an intermediate term licence, in which there is no well drilled laterally, adjoins a freehold spacing unit in which there is a producing well.

The Crown lessee served with a crude oil offset notice may choose one of the following options:

- commence drilling a well in the Crown spacing unit,
- surrender the Crown spacing unit,
- pay compensatory royalty on the Crown spacing unit, ***or***
- finalise a production-sharing arrangement with the Crown.

3.2 Compensatory Royalty

If the lessee elects to pay compensatory royalty on the subject Crown spacing unit after receiving an offset notice:

- The vintage of the Crown spacing unit will be determined in the same manner as for a conventional Crown lease well-event, and the Crown royalty rate will be applied accordingly.
- The monthly compensatory royalty will be calculated on the crude oil produced and recovered from the freehold well for the month just as if that same quantity of crude oil had been produced and recovered from the Crown spacing unit.
- The Crown royalty share of the production will be valued at the new oil par price in effect for the month of production.
- The DOE will invoice the lessee for the monthly compensatory royalty on the Crown spacing unit.

3.3 Crown Overriding Royalty

Crown overriding royalty results when mineral rights are disposed of under specific conditions in which the lessee acquired certain Crown lease agreements in exchange for a payment that was partly cash and partly an overriding royalty on any minerals produced and recovered from the lands in the lease agreement. This practice was discontinued in the 1950s and very few active leases remain that are subject to this royalty clause. Crown overriding royalty is expected to lapse by the year 2000. On the lease agreements that remain, Crown overriding royalty is invoiced monthly by the DOE.

3.4 Trespass

Trespass damages must be paid to the Crown when a mineral is recovered from Crown mineral rights without the appropriate authorisation (i.e., a Crown mineral rights lease). For petroleum and natural gas, trespass can occur under the following conditions:

- a well is drilled into a zone where the Crown mineral rights have not been leased, ***or***
- production from a zone held under a mineral rights lease continued or resumed ***after*** the rights to that zone had been discontinued.

Trespass is categorised as being intentional or unintentional, and damages are calculated differently based on this distinction.

3.4.1 Unintentional Trespass

Trespass is unintentional if it can be demonstrated that reasonable precautions were taken to prevent the wrongdoing. However, if an unintentional trespasser does not comply with directives issued by the DOE in its official notification of trespass, any subsequent production will be viewed as intentional trespass.

3.4.2 Intentional Trespass

Intentional trespass implies wilful wrongdoing. Specifically, this means the trespasser pursued a course of action knowing it was wrong.

3.4.3 Trespass Damages

Trespass damages are the value of the mineral recovered from the unauthorised location. If trespass is determined to be unintentional, the trespass damages assessed by the Crown will be reduced by the reasonable direct costs incurred by the trespasser related to the trespass volumes.

The trespass volume is the Crown interest share of the quantity of production recovered from the unauthorised location. The amount due to the Crown for unintentional trespass is calculated as follows:

- the value of the trespass volume is determined using the battery price in effect for the recovered mineral for each month that trespass occurred,
- the value of the trespass volume is reduced by any royalty paid to the Crown on account of the trespass volume, ***and***
- there is no reduction made for costs.

Interest on trespass damages is paid to the Crown for each month in which the trespass continued, until the DOE receives the full amount. In addition to any other penalties or interest provided for under the Regulations or Act, a trespasser may be liable for a fine of up to $100,000.

4.0 SPECIAL PROVISIONS FOR TRANSITION FROM PRE-1995

4.1 Field Condensate Royalty

Field condensate is subject to Crown royalty under the *Petroleum Royalty Regulation (AR 248/90)*, and is defined as "products obtained from natural gas or solution gas before it is delivered to a gathering system." Field condensate is normally separated from gas in the field and sold, or otherwise disposed of, without further processing and before it enters a gas gathering system.

As of January 1, 1997, the administration of field condensate Crown royalty became part of the natural gas royalty process. The business rules associated with field condensate Crown royalty can be found in the Alberta Natural Gas Royalty Principles and Procedures.

5.0 CROWN ROYALTY SHARE OF CRUDE OIL

5.1 Crown Royalty Share

The Crown Royalty share of crude oil is based on the quantity of crude oil measured at, or prorated to, the wellhead of the well-event from which the crude oil is produced and recovered. This volume is applied to the royalty calculation formulae described in Appendices A, B, and C. Crude oil royalty is delivered in kind to the Crown Agent's account. Although royalty is calculated for individual well-events, it is delivered and reported as total royalty for the battery.

5.2 Responsibility of Battery Operator

Battery operators must account for the quantities of crude oil produced and delivered through their facilities during a production month. For the purposes of accounting to the DOE, the battery operator is the person listed as the operator of record with the EUB for a tank battery and the well-events producing into that tank battery (the production battery).

Unless the Minister directs otherwise, the battery operator is responsible for delivering the Crown's royalty share of crude oil produced from each well-event connected to the battery. The royalty volumes will be delivered to the nearest pipeline sales point for credit of the Crown or the marketers designated by the Crown.

5.3 Transactions Triggering Crown Royalty

Crown royalty is calculated on all volumes of crude oil produced in which the Crown has an interest, and which was recovered from well-events within Alberta. Liability for the Crown royalty share occurs at the time and place that marketable crude oil is produced and recovered. Crown royalty is calculated monthly based on verified well-event production reported on the Monthly Production Report S–1 to the EUB.

5.4 Forecasting the Crown Royalty Share of Crude Oil

To enable accurate forecasting, the DOE issues an Information Letter approximately one month before the beginning of the production/sales month to which it applies. This letter provides all the information necessary to determine the correct royalty volume payable to the Crown for both forecasting and actual calculations. It contains details on the relevant par price, select prices, royalty factors, and "R" multipliers prescribed for old, new and third tier oil, and differentiates between non-heavy and heavy oil categories. The information contained in those letters can also be accessed on the Hot Line in Calgary at (403) 297-5430 and on Internet as follows:

http://www.energy.gov.ab.ca/room/updates/index.htm

These Information Letters are sent to all battery operators each month. The battery operator uses the Form A to report the forecasted Crown royalty and lessee share to the pipeline, as follows:

- forecast monthly volumes for crude oil that will be delivered to a receiving facility,
- identify the source location of the delivery,
- identify the destination location for the delivery, ***and***
- identify the forecasted delivery in m^3 to each shipper.

The battery operator is responsible for forecasting the supply volumes correctly. If the forecasting is incorrect, it could result in an inaccurate Notice of Shipment, and trunkline penalties may be levied on the shipper. Any such penalties incurred on the Crown royalty share may be charged back to the battery operator.

Any adjustment to the original forecast by the battery operator must be submitted to the affected shipper on Form B. The shipper can then use the information to revise their initial forecast. Any Form B adjustments to the Crown royalty share must be submitted to the Crown's Agent for each pipeline. The DOE's offices in Calgary can provide confirmation of the Crown Agent for a pipeline.

5.5 Delivering the Crown Royalty Share of Crude Oil

The battery operator must deliver the Crown's royalty oil to the pipeline or terminal in the month in which it was produced. To ensure delivery to the Crown Agent's account, shipper splits that identify the Crown volume separately, must be provided to the pipeline in accordance with the Petroleum Industry Reporting Calendar[1] deadline. For reporting purposes, the Crown Agent will be identified as Crown/Name of Crown Agent.

Through its agents, the Crown accepts delivery of net marketable clean royalty oil from production batteries through a custody transfer meter connected to a pipeline or truck terminal.

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[1]The Petroleum Industry Reporting Calendar is published by the Department of Energy and contains all the deadlines that pertain to delivery and payment of crude oil. The calendar is distributed once a year to industry, but can be obtained at anytime from the DOE's offices in Calgary. It can also be viewed on Internet at http://www.energy.gov.ab.ca/oil/royalty/index.htm

5.6 Reporting Delivery of the Crown Royalty Share of Crude Oil

The battery operator is responsible for reporting the delivery of the Crown royalty share of crude oil. The Petroleum Field Deliveries Report (APMC 121) and the Summary of Petroleum Field Deliveries Report (APMC 120) must be filled out by the battery operator and submitted to the Calgary offices of the DOE according to the deadlines on the Petroleum Industry Reporting Calendar. Sample copies of these two forms are included in Appendix H.

5.6.1 Petroleum Field Deliveries Report (APMC 121) (Appendix H, Form 2)

Battery operators must use the APMC 121 to report the volume of royalty oil delivered on behalf of all working interest owners to the Crown for a particular delivery month. The DOE then uses the APMC 121 to verify the royalty share of oil delivered during the month.

The Crown royalty share is calculated based on production from individual well-events, and reported and delivered at the battery level.

Form Submission

The following information is required on the APMC 121 form:

Operator Code — The alphanumeric code assigned by the EUB to the operator of the producing batteries being reported.

Operator Name — The name recognised by the EUB corresponding to the operator code.

Delivery Period — The year and month in which the petroleum being reported was delivered.

Producing Point — The 5- to 7-digit code assigned by the EUB designating the producing point battery.

Battery Legal — The LSD, section, township, range and meridian in which the producing point battery is located.

Delivery Point — The final delivery location or the point of entry into the pipeline system. (Intermediate delivery points may be defined in the comments section, but should not be included in the delivery point boxes.) If delivery is made directly to a pipeline, or to a terminal or cleaning plant on a pipeline, report the pipeline, terminal or cleaning plant code in the box for Pipeline or Terminal Code. If delivery is made to a battery directly connected to a pipeline, report the 5- to 7-digit EUB battery code designating the battery receiving the delivery in the box for Receiving Battery Code.

Crown Royalty Delivery — To the nearest 1/10th of a cubic metre, report the volume of royalty oil being delivered to the Crown in the box for Crown Royalty Cubic Metres Delivered. Report the Trucking Allowance as a unit cost in dollars per cubic metre ($\$/m^3$) in the box for Trucking Allowance.

Over-Delivered Royalty — Use this column only when the form is an amending APMC 121, when the amendment is claiming back the over-delivered royalty.

5.6.2 Summary of Petroleum Field Deliveries (APMC 120) (Appendix H, Form 1)

The DOE uses the APMC 120 to verify the total number of lines of data and volumes of petroleum field deliveries submitted on either the APMC 121 forms or magnetic media. This form is an official document, so the original form must be submitted and signed by the person responsible for the information on the APMC 120/121 forms.

Form Submission

An original APMC 120 form must be attached to the completed APMC 121 forms for the current delivery period, and be received at the Calgary offices of the DOE by the deadlines set on the Petroleum Industry Reporting Calendar. The following information is required on the form:

Operator Code — The alphanumeric code assigned by the EUB to the operator of the producing batteries being reported.

Operator Name — The name recognised by the EUB that corresponds to the operator code.

Delivery Period — The year and month during which the petroleum being reported was delivered.

Submission on APMC 121 Forms — Complete this section only if submission is being made on the APMC 121 forms.

Total Number of Lines — The total number of lines completed on the attached APMC 121 forms.

Total Crown Royalty Volume — The total Crown royalty volume (to the nearest 1/10th of a cubic metre) reported on the attached APMC 121 forms.

Submission on Magnetic Media — Complete this section only if submission is made by diskette.

Serial Number — The serial number of the diskette.

Total Number of Records — The total number of records included on the diskette.

Total Crown Royalty Volume — The total Crown royalty volume (to the nearest 1/10th of a cubic metre) reported on the diskette being submitted.

Date Submitted — The date on which the APMC 120 and APMC 121 forms or magnetic media are submitted.

Submitted By — The printed name and the telephone number of the person making the submission.

Authorised Signature — The signature of the person responsible for the information.

Submissions on Magnetic Media

Before submissions will be accepted for petroleum field delivery information on magnetic media (as normally reported on the APMC 120 and APMC 121 forms), formal approval must be obtained from the DOE. Until this occurs, all field delivery information must be reported on the APMC 120 and APMC 121 forms. Additional approval is required when changing the medium

and/or method. Contact the Information Services Branch of the DOE (Calgary offices) for more information on the approval procedures.

When magnetic media are used, an original APMC 120 form must still be submitted with the diskette, and signed by a company representative. These must be received at the Calgary offices of the DOE by the deadlines set on the Petroleum Industry Reporting Calendar.

6.0 TRUCKING ALLOWANCE

The Crown will reimburse battery operators for costs associated with trucking the Crown royalty share.

6.1 Eligible Cost Components

These are the direct "in-transit" trucking costs from the point where the oil is treated to meet, or already meets, pipeline basic sediment and water (BS&W) quality specifications, to the pipeline-connected receipt point. The oil must be delivered to the pipeline-connected receipt point without interruption. The cost of trucking oil to a cleaning facility is not eligible. Unless the DOE gives written approval in advance, other transportation costs are not allowed.

The unloading cost at a pipeline-receiving location is an eligible cost, except where the unloading cost is charged as a tariff to the shipper — the Crown Agent.

The Goods and Services Tax (GST) is ***not*** eligible and ***cannot*** be claimed in the Trucking Allowance.

6.2 Calculating a Trucking Allowance

The trucking allowance, which is expressed as a unit cost in $\$/m^3$, is calculated by dividing the sum of the eligible cost components (Section 6.1 above) by the volume of oil delivered in the month.

The cost of trucking both Crown royalty and lessee share volumes is used as the basis for this calculation. Therefore, the unit cost of trucking Crown royalty oil is identical to the actual eligible unit cost of trucking the lessee's share. Trucking costs incurred on a non arms-length basis cannot exceed the trucking rate available from the lowest cost competitive source, as documented by competitive bids.

6.3 Claiming a Trucking Allowance

The APMC 121 form is used by the battery operator to claim trucking allowances. The battery operator will receive payment for trucking allowances claimed on the current month APMC 121 submissions in accordance with the Petroleum Industry Reporting Calendar.

The amending APMC 121 form must be used if a trucking allowance was not claimed in a prior month, or if a previously submitted trucking allowance claim needs amending.

6.4 Audit Requirement

The DOE audits trucking allowance claims. Battery operators must retain records proving the loading and delivery points, volumes, cost of each trucked shipment, and evidence that the oil meets the eligibility requirements. Battery operators may be requested by the DOE to provide these third-party invoices and other calculations necessary to confirm the trucking allowance claim. If this information is not provided upon request, the battery operator's trucking allowance claim will be denied.

7.0 RECONCILING THE CROWN ROYALTY SHARE OF CRUDE OIL

7.1 Operator Royalty Delivery Confirmation Report (Appendix H, Report 1)

The Calgary offices of the DOE issue an Operator Royalty Delivery Confirmation Report when a battery operator submits current month petroleum field delivery information on the APMC 121 form. This report is included in the reconciliation package issued to the operator on industry payday, as outlined in the Petroleum Industry Reporting Calendar. The confirmation report shows all reported delivery information, including coding and volumetric changes made to the APMC 121 record for each producing battery. Upon receiving the report, the battery operator can update current and future reporting information.

7.2 Crude Oil Crown Royalty Statement (Appendix I)

The Petroleum and Other Royalties Branch of the DOE (Edmonton) generates this statement for all battery operators approximately six weeks after the month of crude oil production. It details the royalty calculation for each well-event, including Gross Crown Royalty, Crown Royalty Reduction and the Net Crown Royalty. A summary statement is also issued providing the Gross Crown Royalty, Crown Royalty Reduction and Net Crown Royalty totals for each battery. These statements are included with the reconciliation package in section 7.1 above.

7.3 Royalty Reconciliation Package (Appendix H, Reports 2, 3 and 4)

The battery operator must resolve any differences between the royalty calculated by the DOE and the royalty delivered. A Royalty Reconciliation Package is sent to the battery operator on the 25th of the second month following production. The Royalty Reconciliation Reports, along with the Crude Oil Crown Royalty Statement, enable the battery operator to reconcile the discrepancies.

Production/Delivery Month	Production/Delivery Month +1	Production/Delivery Month +2
July — Calculate and deliver royalty share to Crown.	August — Report delivery information on APMC 120 and 121 forms.	September — Receive Crude Oil Crown Royalty Statement and Royalty Reconciliation Reports.

The Royalty Reconciliation Package consists of four reports, as described below.

Royalty Totals Reconciliation Report — provides the total approved and unapproved Crown royalty for the current month, along with the approved and unapproved royalty adjustments for prior months. The "Current Month" identified in the Reconciliation Reports refers to the Production/Delivery Month two months prior to the issue date of the Reconciliation Reports.

Unapproved Royalty Production Report — provides royalty information for batteries that could not be included in Prior/Current Month Reconciliation Reports because of coding errors.

APMC/Operator/DOE *Current* Month Reconciliation Report — provides the current net royalty volume calculated, the delivered volume, and the difference between the calculated royalty and delivered volume for each battery.

APMC/Operator/DOE *Prior* Month Reconciliation Report — for each battery, provides the up-to-date net royalty calculated, previous net royalty, DOE adjustment, delivered volume, invoiced volumes, prior/future month collections, and the difference between royalty received and royalty calculated.

7.4 Amending APMC 121 Form

Where a battery operator has under-delivered or over-delivered a royalty volume, or a royalty adjustment has been made that results in an over-delivery or under-delivery, the battery operator must file an amending APMC 121 form. The battery operator must also use an APMC 121 form when amending information submitted previously on APMC 121 forms.

The Amending Report information box on the form must be completed on each amending form submitted. Amending APMC 121 forms must be submitted *separately* for each delivery period. They *cannot* be submitted on magnetic media or by fax, nor can they be included with the current month APMC 121 forms. An APMC 120 form is not required when submitting amending APMC 121 forms.

When amending previously submitted information, reverse the old information on one line (place brackets < > around old information) and indicate the new information on the line(s) immediately following. If claiming back over-delivered volumes, report the volume being claimed in the Over-Delivered Royalty column. In the appropriate comment section, state the reason for the amendment.

8.0 FINANCIAL TRANSACTIONS
(Appendix H, Reports 5–9)

8.1 Statement of Royalty Adjustments and Transportation Allowances

The Calgary offices of the DOE issue the Statement of Royalty Adjustments and Transportation Allowances on industry payday. Each battery operator receives a separate statement for each delivery period in which a financial transaction occurs. Each statement documents (by producing

point battery) any payment for transportation allowance or royalty over-delivery, and any charge for royalty under-delivery.

Transportation allowance and royalty over-deliveries are positive numbers on the Statement of Royalty Adjustments and Transportation Allowance. Any adjustment that results in a reduction of a transportation allowance or a royalty over-delivery will be a negative number (i.e., shown in brackets) on the statement.

Royalty under-deliveries are negative numbers (shown in brackets) on the Statement of Royalty Adjustments and Transportation Allowance. Any adjustment that results in a reduction of an under-delivery are shown without brackets.

If the grand total of the transportation allowance, royalty over-deliveries and royalty under-deliveries is positive, a payment notice will be included with the statements. Payments to the operator will be made by an electronic transfer of funds.

If the grand total of the transportation allowance, royalty over-deliveries, and royalty under-deliveries is negative, an invoice will be included with the statements. Invoices are payable in accordance with the terms stated on the invoice.

8.1.1 Receipt of Statements

Notice of payment transactions or invoices, along with the supporting Statements of Royalty Adjustments and Transportation Allowance, will be forwarded by post or courier to the operator or, with prior authorisation, will be available for pick-up after 1:00 p.m. on industry payday at the Calgary offices of the DOE. The package will also include the Royalty Reconciliation Reports and the Operator Royalty Delivery Confirmation Report.

9.0 GLOSSARY OF TERMS/ACRONYMS

Alberta Energy and Utilities Board (EUB)

Battery — A system or arrangement of tank(s) or other surface equipment receiving the effluent from one or more wells prior to delivery to market or other disposition, and may include equipment or devices for separating the effluents into oil, gas and water for measurement.

Condensate — A mixture of mainly pentanes-plus and heavier hydrocarbons that may be contaminated with sulphur compounds, which is recovered or is recoverable at a well from an underground reservoir, and that may be gaseous in its virgin reservoir state but is liquid at the conditions under which its volume is measured or estimated.

Crown interest — The Crown portion of area within a drilling spacing unit for a well-event as compared to the total area of that spacing unit.

Crude oil — A mixture mainly of pentanes and heavier hydrocarbons that may be contaminated with sulphur compounds, which is recovered (or recoverable) at a well from an underground reservoir, and that is liquid at the conditions under which its volume is measured or estimated, and includes all other hydrocarbon mixtures so recovered (or recoverable) except raw gas, condensate or crude bitumen.

Deepening — The re-entry into an oil well and the drilling of any bore of the well away from the course of a pre-existing bore of the well or beyond the total depth of a pre-existing bore referred to in the licence for the well, or both, pursuant to an amendment of the licence or to any other approval of the EUB relating to the well, so that oil production is obtained from a zone:

- not penetrated by a pre-existing bore before the re-entry, and
- below the zone from which that drilling commenced.

Deeper pool test (DPT) — A well located within the established or expected limits of a pool or pools and drilled with the objective of searching for undiscovered oil or gas below the deepest such pool.

Department of Energy (DOE)

Drilling spacing unit (DSU) — The area specified by applicable regulations or orders for the drilling of a well. The normal DSU for an oil well is one quarter section. The EUB may prescribe special DSUs, which may differ from normal DSUs in size, shape or target area, based on the volume that is estimated to be produced from the area.

Finished drill date (FDD) — The date on which the total depth of a well is reached without regard for any deepening that may be made after substantially continuous drilling has once ceased.

Gas — Natural gas or marketable gas, or any constituent of raw gas, condensate, crude bitumen or crude oil that is recovered in processing and that is gaseous at the conditions under which its volume is measured or estimated.

Heavy oil — Crude oil obtained from a well-event during a month in which no crude oil obtained in that month from the well-event has a density of less than 900 kg per cubic metre.

Hectare (ha) — The land measurement unit for 10,000 m^2. One hectare is equivalent to 2.471 acres.

New field wildcat (NFW) — A well located a considerable distance beyond the limits of known pools and drilled in a geological environment where oil and gas have not yet been discovered.

New oil — Generally from pools, or portions thereof, discovered on or after April 1, 1974 and before October 1, 1992, or from wells drilled or qualifying under specific circumstances.

New pool wildcat (NPW) — A well located at a relatively considerable distance outside the limits of known pools, or drilled in a geological environment where other pools have been found but where, in the EUB's opinion, the complexities in the geological conditions are such that searching for a new pool is hazardous. The objective of a new pool wildcat well is the discovery of a new pool in an area known to contain oil and gas.

Non-heavy oil — Crude oil obtained from a well-event during a month in which some or all of the crude oil obtained from the well-event has a density of less than 900 kg per cubic metre.

Oil and Gas Conservation Regulation — Alberta Regulation 151/71 with amendments up to and including 144/96, which is administered by the EUB.

Oil well — A well that produces primarily liquid hydrocarbons from a pool or portion of a pool wherein the hydrocarbon system is liquid or exhibits a bubble point on reduction of pressure, or any well so designated by the EUB.

Old gas entity (OGE) — a pool or portion thereof that has been, or is designated by, the EUB on the basis of wells drilled into the pool before January 1, 1974, that have gas production attributed to them.

Old oil — Generally from pools discovered before April 1, 1974.

Old oil entity (OOE) — A pool or portion thereof that has been, or is designated by, the EUB on the basis of wells drilled into the pool before April 1, 1974, and have oil production attributed to them.

Par price — Two par prices, one for non-heavy oil and another for heavy oil, are determined on a monthly basis by the Minister. The par price is used in the formulae for calculating royalties for oil.

Petroleum — The production from any well that, in the opinion of the Minister, initially produces oil either alone or with gas at a gas–oil ratio of less than 1800:1, but does not include any production that may be obtained from any well that, in the opinion of the Minister, initially produces oil with gas at a higher gas–oil ratio.

Pool — A natural underground reservoir containing, or appearing to contain, an accumulation of petroleum or natural gas separated, or appearing to be separated, from any other such accumulation.

Production entity — A well, block or project as described by the Oil and Gas Conservation Regulation AR 151/71.

Reactivated well — An oil well or oil sand well that does not produce any substance, other than excluded production, during a qualifying period referred to in the Reactivated Well Royalty Exemption Regulation.

Residue gas — The gaseous mixture consisting primarily of methane and obtained as a separate product at a gas processing plant or reprocessing plant.

Select price — Six select prices for oil (non-heavy old, non-heavy new, non-heavy third tier, heavy old, heavy new, and heavy third tier) are determined annually by the Minister before the first

production month in the calendar year. They are used in the formulae for calculating royalties for oil.

Solution gas — The gaseous component of petroleum that is separated from crude oil after the recovery of petroleum from a well.

Spud date — The day the spudding or commencement of deepening of a well occurs.

Suspended well — A well at which no significant producing or injecting operations have occurred during the past 12 months.

Third tier oil — Generally from pools that are discovered after September 30, 1992.

Unique well identifier (UWI) — A 16-character code assigned by the EUB to a well to give it a unique identity. Although it is based on the legal survey position of a well, the UWI is primarily for identification rather than location (e.g., 100102003008W402).

Unit agreement — An agreement or plan of development and operation for the recovery of oil and gas, as a single consolidated unit without regard to separate ownerships, and for the allocation of costs and benefits on a basis as defined in the agreement or plan.

All production from the unitised area is pooled and distributed in accordance with a set of agreed-upon participation factors. In this way, each tract gets a share of all future production from the unit, regardless of which wells actually produce. Based on the participation of his leases, each operator or working interest owner receives a share of production from the entire unit area. Similarly, the royalty owners receive revenue based on the participation of their leases as applied to production from the whole unit area, rather than on production from their particular lands.

Well — An orifice in the ground completed or being drilled as follows:

- for the production of oil or gas,
- for injection to an underground formation,
- as an evaluation well or test hole, ***or***
- to or at a depth of more than 150 m;

for any purpose, but does not include one to discover or evaluate a solid inorganic mineral, and which does not or will not penetrate a stratum capable of containing a pool or oil sands deposit.

Well-event — Defined as:

- a part of a well completed in a zone and given a unique well identifier by the EUB,
- parts of a well completed in two or more zones and given a single unique well identifier by the EUB,
- a part of a well completed in and recovering crude oil from a zone, but which has not yet been given a unique well identifier by the EUB, ***or***
- parts of a well completed in and recovering crude oil from two or more zones during the period when the parts are considered by the Minister as a single well-event for the purposes of the Petroleum Royalty Regulation and before the EUB makes a decision whether or not to give the parts a single unique well identifier.

APPENDIX A. COMMON CROWN ROYALTY ELEMENTS

Basic Royalty

The "S" royalty is the basic royalty in cubic metres, and is a function of the monthly well-event production in cubic metres (see Tables 1 and 2).

Crown Royalty Factors

Crown Royalty Factors are represented as *k*, *y* and *z* in the royalty formulae, with these factors being a function of the base rate and the marginal rate. The Crown royalty factor for each vintage is currently set at 3.

Westcoast Pipeline Royalty Adjustment

As agreed to by the crude oil producers and industry associations, as of May 1, 1995, the DOE may apply an adjustment to the Crown royalty factors in recognition of industry's share of the cost incurred by the Crown to ship crude oil through the TransMountain Pipeline to the west coast.

The DOE calculates and publishes a percentage royalty adjustment before each upcoming quarter to recover its estimated costs for that quarter. This adjustment also considers the actual-to-estimate correction for the previous period.

Crown Royalty Vintage

The vintage of crude oil is established based on the date the pool from which the crude oil is obtained is discovered, or the date on which a well is drilled or deepened under specific circumstances.

Third tier oil (Appendices F-2 and F-3) is crude oil produced in segregation from either:

1. the exploratory interval of a third tier exploratory well that is spudded, or for which deepening commenced after September 30, 1992, ***or***
2. a pool first designated by the EUB after September 30, 1992, which meets one of the following criteria:
   a) penetrated by the exploratory interval of a third tier exploratory well that has a finished drilling date preceding the date on which the pool was designated by the EUB, ***or***
   b) penetrated only by wells spudded or by well deepenings commenced after September 30, 1992, that have a finished drilling date before the date on which the pool was designated by the EUB.

The EUB may revoke the designation of a pool in whole or in part. When this occurs, the pool that qualified as third tier oil will be treated as a pool, or part of a pool, designated by the EUB on or before September 30, 1992. The vintage status will also change for any well-event producing from such a pool effective the first day of the month following the month in which the pool designation was revoked.

New oil is crude oil that does not qualify as third tier oil, and which meets specific qualifying criteria. The majority of wells (95%) will qualify under one of the following:

1. Produced from an oil well spudded after October 31, 1991 (Appendix F-4), ***or***
2. Produced from an interval deepened after October 31, 1991 (Appendix F-4), ***or***
3. Produced from the first well in a drilling spacing unit with a finished drilling date on or after January 1, 1984 (Appendix F-5), ***or***

4. Reactivated under the *Reactivated Well Incentive Regulation* (Appendix F-6).

Wells may also qualify for **new oil** under the following:

1. Produced from a pool discovered on or after April 1, 1974 (Appendix F-13), ***or***
2. Produced from an extension of a pool if the Minister determines the extension is attributable to wells drilled on or after April 1, 1974 (Appendix F-13), ***or***
3. Reactivated under the *Reactivated Well Royalty Exemption Regulation* and after the maximum exemption under that Regulation has been taken (Appendix F-6), ***or***
4. Placed on production before April 1, 1993, after previously having been shut in for not less than 12 consecutive months, including the month of October 1991 (Appendix F-6), ***or***
5. Placed on production on or after May 1, 1980 and before November 1, 1991, after previously having been shut in for a continuous period of not less than 3 years (Appendix F-7), ***or***
6. Drilled after December 31, 1980, in a drilling spacing unit approved by the Minister as described in Section *(3) (d), (e), (f), (g)* of the *Petroleum Royalty Regulation (AR 248/90)* (Appendices F-8, F-9, F-10, F-11 and F-12).

Co-existent new oil occurs when the Minister determines that crude oil obtained from a production entity is partly old oil and partly new oil, and assigns a coexistent new oil factor that represents the portion of new oil as 0% to 100% (Appendix G, Information Letter 74-12).

NOTE: Old oil is crude oil that does not qualify as new oil or third tier oil.

Crown Royalty Tables

The following tables are used in the formulae to determine the Crown royalty share of crude oil.

Table 1. Old Oil and New Oil

Well-Event Production for the Month	**Well-Event Crown Royalty or "S" Factor for the Month**
Less than 190.7 m^3	[M^3 produced]^2 *divided by* 2755.04
190.7 m^3 or more	13.2 m^3 *plus* [(m^3 produced *minus* 190.7) *multiplied by* 0.115385]

Table 2. Third Tier Oil

Well-Event Production for the Month	**Well-Event Crown Royalty or "S" Factor for the Month**
Less than 20.0	No royalty payable
20.0 but less than 190.7 m^3	[m^3 produced *minus* 20.0]^2 *divided by* 2207.46
190.7 m^3 or more	13.2 m^3 plus [(m^3 produced *minus* 190.7) *multiplied by* 0.115385]

APPENDIX B. CROWN ROYALTY CALCULATION FOR NON-HEAVY CRUDE OIL

Overview

For Crown royalty purposes, non-heavy crude oil refers to crude oil that has a density of less than 900 kilograms per cubic metre (900 kg/m^3). The DOE will determine the density of the crude oil produced from each well-event, based on the density of the crude oil at the delivery point for the production battery into which the well-event produces. In the following two cases, the operator may request the density used for royalty calculation to be revised on a specific well-event to reflect the actual heavy oil density:

1. Heavy oil from a well-event is being delivered to a "non-heavy" oil battery, ***and***
2. Production at a single well battery where a royalty holiday is in place, may register a "non-heavy" density for the well-event with the royalty holiday until after the Crown receives its royalty oil and reports a density.

To request a revision of the density record for a well-event, please forward a copy of an analysis showing the heavy oil density for production from that well-event to the Petroleum and Other Royalties Branch of the DOE.

The Crown royalty share of marketable non-heavy crude oil is calculated each month according to prescribed formulae that consider the rate of production, provide price sensitivity and distinguish between old oil, new oil and third tier oil. Old oil, new oil and third tier oil each have a separate Crown royalty formula.

Non-heavy Crude Oil Par Price and Select Prices

Each production month, a par price is determined by the Minister for old non-heavy oil, new non-heavy oil, and third tier non-heavy oil. In this document, the par price referred to as the Non-heavy Oil Par Price applies equally to old non-heavy oil, new non-heavy oil and third tier non-heavy oil.

The non-heavy oil par price formula is:

(30% of previous month average Edmonton postings plus 70% of previous month average Nymex WTI price, net of contract month average transportation differential, Edmonton to Chicago), less average field quality adjustment, less average transportation cost from the field.

The above formula shows that Nymex WTI price is weighted by 70% to capture the bigger market, while the Edmonton refinery postings is 30% to capture the smaller, local market.

The Minister has also determined an Old Non-heavy Oil Select Price, a New Non-heavy Oil Select Price and a Third Tier Non-heavy Oil Select Price, which will be adjusted annually for inflation. The select prices for a year apply to all production months in that year.

The DOE publishes the Non-heavy Oil Par Price, the Old Non-heavy Oil Select Price, the New Non-heavy Oil Select Price and the Third Tier Non-heavy Oil Select Price in an Information Letter on or before the last day of the second month before the production month to which these prices apply.

Any changes to the Non-heavy Oil Par Price, Old Non-heavy Oil Select Price, New Non-heavy Oil Select Price and Third Tier Non-heavy Oil Select Price established for a production month are not retroactive.

Old Non-heavy Oil Royalty

If the Non-heavy Oil Par Price in a month is less than the Old Non-heavy Oil Select Price in the same month, then the Crown royalty share of marketable old non-heavy crude oil produced and recovered from a well-event in that month is the quantity calculated in accordance with Table 1 (Appendix A).

If the Non-heavy Oil Par Price in a month is equal to or greater than the Old Non-heavy Oil Select Price in the same month, the Crown royalty share of marketable old non-heavy crude oil produced and recovered from a well-event in that month is:

$$R = S + kS\left(\frac{A-B}{A}\right)$$

Where:

R = Crown royalty payable in cubic metres
S = cubic metres determined in accordance with Table 1
k = old non-heavy oil royalty factor for the month
A = non-heavy oil par price for the month
B = old non-heavy oil select price for the month

New Non-heavy Oil Royalty

If the Non-heavy Oil Par Price in a month is less than the New Non-heavy Oil Select Price for the same month, then the Crown royalty share of marketable new non-heavy crude oil produced and recovered from a well-event in that month is the quantity calculated in accordance with Table 1 (Appendix A).

If the Non-heavy Oil Par Price in a month is equal to or greater than the New Non-heavy Oil Select Price in the same month, then the Crown royalty share of marketable new non-heavy crude oil produced and recovered from a well-event in that month is:

$$R = S + yS\left(\frac{X-D}{X}\right)$$

Where:

R = Crown royalty payable in cubic metres
S = cubic metres determined in accordance with Table 1
y = new non-heavy oil royalty factor for the month
X = non-heavy oil par price for the month
D = new non-heavy oil select price for the month

Third Tier Non-heavy Oil Royalty

If the Non-heavy Oil Par Price in a month is less than the Third Tier Non-heavy Oil Select Price in the same month, then the Crown royalty share of marketable third tier non-heavy crude oil produced and recovered from a well-event in that month is the quantity calculated in accordance with Table 2 (Appendix A).

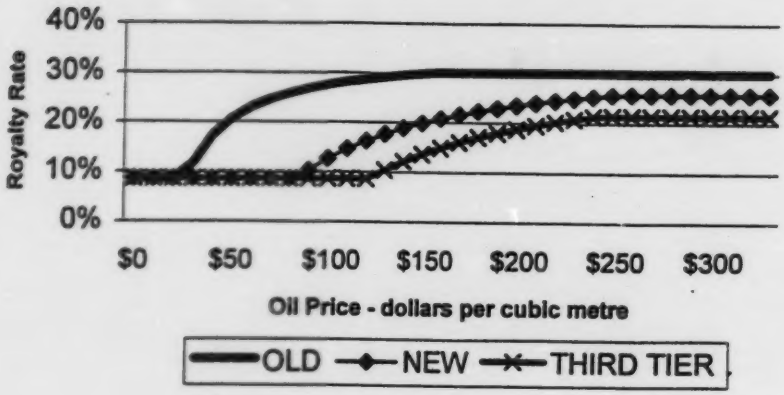
If the Non-heavy Oil Par Price in a month is equal to or greater than the Third Tier Non-heavy Oil Select Price in the same month, then the Crown royalty share of marketable third tier non-heavy crude oil produced and recovered from a well-event in that month is:

$$R = S + zS\left(\frac{Y-F}{Y}\right)$$

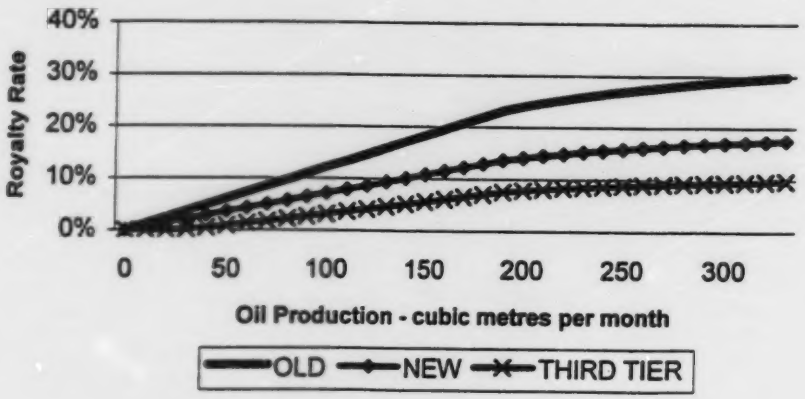
Where:

R = Crown royalty payable in cubic metres
S = cubic metres determined in accordance with Table 2
z = third tier non-heavy oil royalty factor for the month
Y = non-heavy oil par price for the month
F = third tier non-heavy oil select price for the month

Non-Heavy Oil - Price Sensitivity



Non-Heavy Oil - Production Sensitivity



APPENDIX C. CROWN ROYALTY CALCULATION FOR HEAVY CRUDE OIL

Overview

For Crown royalty purposes, heavy crude oil refers to crude oil that has a density equal to or greater than 900 kilograms per cubic metre (900 kg/m^3). The DOE will determine the density of the crude oil produced from each well-event based on the density of the crude oil at the delivery point for the production battery into which the well-event produces.

The Crown royalty share of marketable heavy crude oil is calculated each month according to prescribed formulae that consider the rate of production, provide price sensitivity and distinguish between old oil, new oil and third tier oil. Old oil, new oil and third tier oil each have a separate Crown royalty formula

Heavy Crude Oil Par Price and Select Prices

Each production month, a par price is determined for old heavy oil, new heavy oil and third tier heavy oil. In this document, the par price referred to as the Heavy Oil Par Price applies equally to old heavy oil, new heavy oil and third tier heavy oil. The heavy oil par price formula is:

Average postings at Hardisty less Average Field quality Adjustment
less Average Field Transportation Cost.

In addition, an Old Heavy Oil Select Price, a New Heavy Oil Select Price and a Third Tier Heavy Oil Select Price have been determined by the Minister, and will be adjusted annually for inflation. The select prices for a year apply to all production months in that year.

The DOE publishes the Heavy Oil Par Price, the Old Heavy Oil Select Price, the New Heavy Oil Select Price and the Third Tier Heavy Oil Select Price in an Information Letter on or before the last day of the second month preceding the production month to which these prices apply.

Any changes to the Heavy Oil Par Price, Old Heavy Oil Select Price, New Heavy Oil Select Price and Third Tier Heavy Oil Select Price established for a production month are not retroactive.

Old Heavy Oil Royalty

If the Heavy Oil Par Price in a month is less than the Old Heavy Oil Select Price in the same month, then the Crown royalty share of marketable old heavy crude oil produced and recovered from a well-event in that month is the quantity calculated in accordance with Table 1 (Appendix A).

If the Heavy Oil Par Price in a month is equal to or greater than the Old Heavy Oil Select Price in the same month, then the Crown royalty share of marketable old heavy crude oil produced and recovered from a well-event in that month is:

$$R = S + kS\left(\frac{A-B}{A}\right)$$

Where:

R = Crown royalty payable in cubic metres
S = cubic metres determined in accordance with Table 1
k = old heavy oil royalty factor for the month
A = heavy oil par price for the month
B = old heavy oil select price for the month

New Heavy Oil Royalty

If the Heavy Oil Par Price in a month is less than the New Heavy Oil Select Price in the same month, then the Crown royalty share of marketable new heavy crude oil produced and recovered from a well-event in that month is the quantity calculated in accordance with Table 1 (Appendix A).

If the Heavy Oil Par Price in a month is equal to or greater than the New Heavy Oil Select Price in the same month, then the Crown royalty share of marketable new heavy crude oil produced and recovered from a well-event in that month is:

$$R = S + yS\left(\frac{X-D}{X}\right)$$

Where:

R = Crown royalty payable in cubic metres
S = cubic metres determined in accordance with Table 1
y = new heavy oil royalty factor for the month
X = heavy oil par price for the month
D = new heavy oil select price for the month

Third Tier Heavy Oil Royalty

If the Heavy Oil Par Price in a month is less than the Third Tier Heavy Oil Select Price in the same month, then the Crown royalty share of marketable third tier heavy crude oil produced and recovered from a well-event in that month is the quantity calculated in accordance with Table 2 (Appendix A).

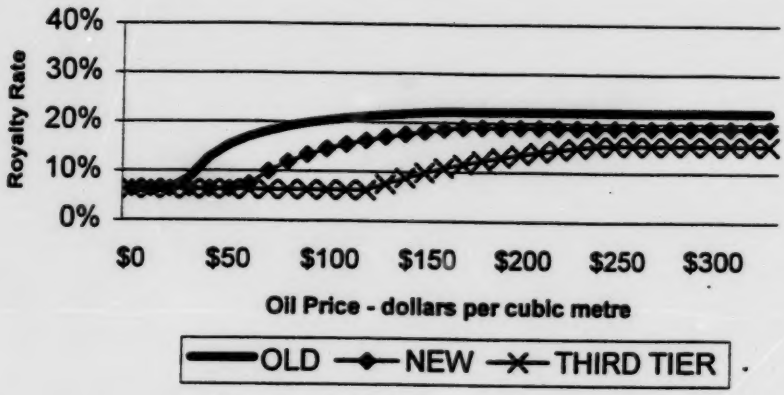
If the Heavy Oil Par Price in a month is equal to or greater than the Third Tier Heavy Oil Select Price in the same month, then the Crown royalty share of marketable third tier heavy crude oil produced and recovered from a well-event in that month is:

$$R = S + zS\left[\frac{Y-F}{Y}\right]$$

Where:

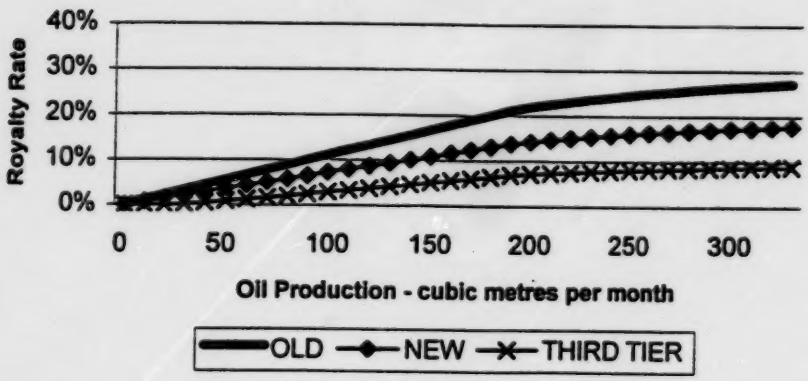
R = Crown royalty payable in cubic metres
S = cubic metres determined in accordance with Table 2
z = third tier heavy oil royalty factor for the month
Y = heavy oil par price for the month
F = third tier heavy oil select price for the month

Heavy Oil - Price Sensitivity



Heavy Oil - Production Sensitivity

At Constant Price of $85/m3



APPENDIX D. CROWN ROYALTY EXEMPTIONS

Reactivated Well Royalty Exemption *(AR 352/92)*

Eligibility

The Reactivated Well Royalty Exemption applies to any oil or oil sands well reactivated after September 30, 1992, based on the following:

- no substance was produced from the well during the 12 consecutive calendar months preceding the month in which the well was reactivated, if reactivation occurred in either October, November or December 1992, or January 1993, ***or***
- no substance was produced from the well during the 24 consecutive months preceding the months in which the well was reactivated, if reactivation occurred in February 1993 or later.

If a small quantity of test production has affected the qualifying period for a well, the well operator may apply in writing to the DOE to have that production excluded. For this to occur, the production must have been obtained in an isolated occurrence that was a test of the well, and the quantity produced and recovered must be consistent with that required for a test. The DOE will then inform the well operator as to whether or not the production may be excluded.

Eligible production from a reactivated well is considered to be the crude oil or oil sands obtained from a pool or oil sands deposit that was penetrated by the well when production commenced following reactivation. Production is not eligible if it is from deeper pools or oil sands deposits penetrated after the well commenced or resumed production.

Confirmation of Eligibility

The DOE will identify eligible wells from its production records, establish benefits, and issue a confirmation letter to the operator for qualifying wells. ***No application is required for the Reactivated Well Royalty Exemption.***

Benefits

Eligible production of crude oil or oil sands is exempt from the Crown royalty that would otherwise be due from the start of the benefit period until a combined total of 8,000 m^3 of eligible production has been produced and recovered from the well. This exemption includes the production from all eligible well-events within the well.

When the benefit limit is reached, well-events with old oil vintage status, whose production is considered eligible, will be certified as new oil vintage status.

Ineligible Wells

A well is not eligible for the Reactivated Well Royalty Exemption if the well:

- is within an enhanced oil recovery scheme boundary, or within 0.8 km of a scheme boundary if relief has been given to that scheme under *section 11* of the *Petroleum Royalty Regulation* or under the *Enhanced Recovery of Oil Royalty Reduction Regulation (AR 348/93)*, ***or***
- is subject to *section 10* of the *Petroleum Royalty Regulation*, ***or***

- is subject to royalty calculated under any *Regulation* other than the *Petroleum Royalty Regulation, **or***
- receives benefits under any Crown royalty *Regulation* other than *AR 352/92*.

Benefits Disallowed or Revoked

A Crown royalty exemption given under the Reactivated Well Royalty Exemption may be partially or entirely disallowed or revoked if:

- production from a reactivated well has materially reduced the production of another well that is not entitled to benefits under the Reactivated Well Royalty Exemption, ***or***
- facts are not disclosed that are pertinent to qualifying for eligibility under the Reactivated Well Royalty Exemption, ***or***
- crude oil or oil sands production from a reactivated well consistently exceeds 121 m^3 per month, and that level of production cannot reasonably be attributed to work performed on the well during and after its qualifying period, ***or***
- crude oil or oil sands production from a reactivated well consistently exceeds 121 m^3 per month, yet that level of production was not obtained from the well during its qualifying period while a restriction on production affecting the well was imposed by EUB during that same period.

Third Tier Exploratory Well Royalty Exemption *(AR 16/93)*

Eligibility

The Third Tier Exploratory Well Royalty Exemption applies to any oil or oil sands well spudded after September 30, 1992, and which is classified by EUB as follows:

- a new field wildcat (NFW), in which case the exploratory interval extends from surface to the total depth of the well, ***or***
- a new pool wildcat (NPW), in which case the exploratory interval extends from surface to the total depth of the well, ***or***
- a deeper pool test (DPT), in which case the exploratory interval extends from the base of the deepest established pool to the total depth of the well.

The crude oil or oil sands produced and recovered from the exploratory interval within an eligible well, which may consist of one or more well-events, is eligible for the Third Tier Exploratory Well Royalty Exemption.

Confirmation of Eligibility

The DOE will identify eligible wells from its production records, establish benefits, and issue a confirmation letter to the operator for qualifying wells. ***No application is required for the Third Tier Exploratory Well Royalty Exemption.***

Benefits

The maximum benefit available for each qualifying well is either:

[$1,000,000 *multiplied by* the Crown interest percentage in the production from the well]

Example: Maximum Benefit for a well x Crown Interest = Maximum Benefit Available
$1,000,000 x 50% = $500,000

OR

The Crown royalty that would otherwise be payable on production from all eligible well-events within the well in its first 12 production months, whichever occurs first.

The Third Tier Exploratory Well Royalty Exemption is effective from the first month of production for a qualifying well until the maximum benefit has been reached.

Ineligible Wells

A well does not qualify for the Third Tier Exploratory Well Royalty Exemption if it is:

- within an enhanced oil recovery scheme boundary, or within 0.8 km of a scheme boundary for which relief has been given under *section 11* of the *Petroleum Royalty Regulation* or under the *Enhanced Recovery of Oil Royalty Reduction Regulation (AR 348/93)*, ***or***
- subject to section 10 of the Petroleum Royalty Regulation, **or**
- eligible to receive benefits under the *Natural Gas Royalty Regulation*, ***or***
- a well with a horizontal extension approved under the *Horizontal Well Petroleum Royalty Regulation (AR 96/91)*, and for which approval has not been revoked.

Impact of Other Benefits

A well receiving a benefit under the Third Tier Exploratory Well Royalty Exemption may become a reactivated well under the Reactivated Well Royalty Exemption. Where this occurs, the benefit under the Third Tier Exploratory Well Royalty Exemption is terminated on the last day of the month before the month in which the well is considered reactivated.

Benefits Disallowed or Revoked

A Crown royalty exemption under the Third Tier Exploratory Well Royalty Exemption may be revoked in whole or in part, if:

- production from the well exceeds the allowable volume authorised by EUB, ***or***
- facts are not disclosed that are pertinent to qualifying for eligibility under the Third Tier Exploratory Well Royalty Exemption.

APPENDIX E. CROWN ROYALTY REDUCTIONS

Experimental Project Petroleum Royalty Reduction *(AR 65/92)*

Eligibility

The Experimental Project Petroleum Royalty Reduction applies to any oil well included in an experimental scheme that is:

- approved by EUB as an experimental scheme and which continues to retain that approved status, ***and***
- subsequently approved by the Minister for royalty reduction under the *Experimental Project Petroleum Royalty Regulation*.

The effective date for an approved royalty reduction is specified by the Minister in the approval. Typically, it will commence as follows:

- the approval date of the new scheme for the experimental project, ***or***
- the expiry date of the previous experimental royalty period for the project, whichever is later.

The term for which an approved royalty reduction is effective is specified by the Minister in the approval. In most instances, it is based on the effective period of the EUB experimental scheme approval. For schemes expected to produce at near commercial levels, the term may relate to a fixed volume of crude oil production.

Application for Eligibility

The scheme operator must submit a written application to the DOE requesting approval of an experimental scheme under the *Regulation*. The application may be submitted before completing the EUB approval process, but it must be supported by a copy of the submission made to EUB for experimental scheme status. The DOE will issue a confirmation letter to the applicant when an application is approved.

Benefits

Crown royalty is calculated at 5% of the Crown interest share of eligible production from each well-event in an approved scheme.

Low Productivity Well Royalty Reduction *(AR 350/92)*

Eligibility

The Low Productivity Well Royalty Reduction applies to any crude oil or oil sands well that:

- did not produce more than 121 m^3 of crude oil or oil sands in any month of the qualifying period, which is defined as follows:
  - a period of 12 consecutive months ending in September, October, November or December 1992, ***or***
  - a period of 24 consecutive months ending in or after January 1993, ***and***
- had an average monthly production not exceeding 73 m^3 during the most recent 6 months in which the well produced, with those months occurring within the qualifying period.

Eligible production from a low productivity well is the crude oil or oil sands obtained from a pool that was penetrated by the well before the end of the well's qualifying period. Production from deeper pools penetrated after the well's qualifying period is not eligible.

Confirmation of Eligibility

The DOE will identify eligible wells from its production records, establish benefits, and issue a letter advising the operator that a well has qualified. ***No application is required for the Low Productivity Well Royalty Reduction.***

Benefits

Crown royalty is capped at 5% of the Crown interest share of the first 16,000 m^3 of crude oil or oil sands produced and recovered from an eligible well. The royalty reduction includes eligible production from all well-events within the well.

Example: Well Production for the Month = 200 m^3
Crown Interest in the Well = 100%
Crown Royalty Rate = 5% maximum
Royalty = Production x Royalty Rate x Crown Interest
Royalty = 200 m^3 x 5% x 100% = 10 m^3

Ineligible Wells

A well is not eligible for the Low Productivity Well Royalty Reduction if that well:

- is within an enhanced oil recovery scheme boundary, or within 0.8 km of a scheme boundary if relief has been given to that scheme under *section 11* of the *Petroleum Royalty Regulation* or under the *Enhanced Recovery of Oil Royalty Reduction Regulation (AR 348/93)*, ***or***
- is subject to *section 10* of the *Petroleum Royalty Regulation*, ***or***
- is subject to royalty calculated under any *Regulation* other than the *Petroleum Royalty Regulation*, ***or***
- receives benefits previously established under the *Horizontal Re-entry Well Royalty Reduction Regulation (AR 348/92)*.

Impact of Other Benefits

A royalty reduction for a low productivity well will terminate under the following conditions:

- when a well becomes an eligible well under the Reactivated Well Royalty Exemption Regulation, ***or***
- when a well becomes an eligible well under the *Horizontal Re-entry Well Royalty Reduction Regulation.*

Benefits Disallowed or Revoked

A Crown royalty reduction given under the Low Productivity Well Royalty Reduction may be partially or entirely disallowed or revoked if:

- production from a low productivity well has materially reduced the production of another well that is not entitled to benefits under the Low Productivity Well Royalty Reduction, ***or***

- facts are not disclosed that are pertinent to qualifying for eligibility under the Low Productivity Well Royalty Reduction, ***or***
- crude oil or oil sands production from a low productivity well consistently exceeds 121 m^3 per month, and that level of production cannot reasonably be attributed to work performed on the well during and after its qualifying period, ***or***
- crude oil or oil sands production from a low productivity well consistently exceeds 121 m^3 per month, and the well met the qualifying requirements while a restriction on production affecting the well was imposed by EUB.

Horizontal Re-entry Well Royalty Reduction *(AR 348/92)*

Eligibility

The Horizontal Well Royalty Reduction applies to an existing well from which a horizontal wellbore is drilled, and which meets the following criteria:

- the horizontal wellbore extends a minimum of 100 m beyond the point where it deviates 80 degrees from vertical, ***and***
- horizontal drilling activity started after September 30, 1992, which is at least 5 years after the finished drilling date of the existing wellbore from which it extends, ***and***
- production obtained from the horizontal extension must be from the same pool as the production from which the maintenance volume was established, ***and***
- the maintenance volume for the well is established by averaging the most recent 12 months during which production occurred before horizontal drilling began, with the subject months of production occurring during the year of re-entry and the 4 preceding years, ***or***
- if the well is an injector well that has been converted to a producing well by re-entry, the maintenance volume is established by averaging the most recent 12 months during which production occurred. If the well does not have 12 months of production during the year of re-entry in addition to the 4 preceding years, the maintenance volume is based on the average for the well(s) whose production was enhanced by injecting the substance into the injector well (e.g., the 4 producing wells in a 5-spot pattern).

Application

A written application must be submitted to the DOE requesting approval of a horizontal extension under the subject Regulation. ***The DOE must receive the application within 6 months of the end of the month in which the horizontal drilling is completed***. The application must provide the following:

- the unique well identifier of the existing wellbore,
- statements of the well-event, pool name and EUB-designated pool code from which the maintenance volume was produced,
- the unique well identifier for the additional wellbore containing the horizontal extension, together with the pool name and EUB-designated pool code of the pool accessed by the horizontal extension,
- a copy of the relevant well license and any associated EUB approvals,
- copies of relevant directional and deviation surveys,

- a statement of the spud date for the existing wellbore,
- a statement of the commencement date and finished drilling date for the continuous drilling operation that resulted in the horizontal extension,
- a statement identifying the point where the wellbore containing the horizontal extension deviates from vertical by 80 degrees, the point where the horizontal extension commences in the producing pool and the length of the horizontal extension,
- a statement specifying the 12 months used to determine the maintenance volume, the production hours, the volume for each month, and the proposed maintenance volume for the well,
- a statement of changes to the operating conditions and the configuration of the well that occurred within 2 years before the re-entry date, ***and***
- for an injector well that is converted to a producing well by re-entry, a statement of the other well(s) whose production was enhanced by the injection of substances through the subject well. The same information required for a producing well that is re-entered, is also required for each of the injector and enhanced wells.

The DOE will issue a confirmation letter to the applicant when an application is approved. The effective date for the confirmation is the first day of the first month in which production is obtained from the horizontal re-entry well.

Benefits

The Crown royalty rate will be capped for crude oil or oil sands produced from an eligible horizontal re-entry extension. The cap will be the Crown royalty rate associated with the average production volume (maintenance volume) for the most recent 12 months in which production occurred before re-entry. The cap for a well with a 12-month average that does not exceed 184 m^3 per month will be one-half that rate on any incremental volume that exceeds the maintenance volume. Examples of these calculations are as follows.

Examples

Maintenance Volume	**C**	60.0 m^3	200.0 m^3
Basic royalty "S" on Maintenance Volume		1.30670 m^3	14.27308 m^3
Old Oil Royalty Multiplier		3.452826	3.452826
Old Oil Royalty on Maintenance Volume	**B**	4.5 m^3	49.3 m^3
Actual production for Month	**A**	400.0 m^3	400.0 m^3
Reduced Royalty Calculation			
All Wells			
Maintenance royalty on A greater of:			
A x (B/C) *or*		30.0 m^3	98.6 m^3
A x 5%		20.0 m^3	20.0 m^3
	D	**30.0 m^3**	**98.6 m^3**
C ≤ 184 m^3			
Maintenance royalty on **C**:			
C x (D/A)		4.5 m^3	
plus **(A–C) x (D/A)** x 0.5		12.8 m^3	
Royalty for Month		**17.3 m^3**	**98.6 m^3**

Ineligible Wells

A well is not eligible for the Horizontal Re-entry Well Royalty Reduction if that well is:

- within an enhanced oil recovery scheme boundary, or within 0.8 km of a scheme boundary if relief has been given to that scheme under *section 11* of the *Petroleum Royalty Regulation* or under the *Enhanced Recovery of Oil Royalty Reduction Regulation (AR 348/93)*, ***or***
- subject to *section 10* of the *Petroleum Royalty Regulation*, ***or***
- subject to royalty calculated under any *Regulation* other than the *Horizontal Well Petroleum Royalty Regulation*.

Impact of Other Benefits

The Horizontal Re-entry Well Royalty Reduction terminates when the subject well qualifies to receive benefits under either the Low Productivity Well Royalty Reduction or the Reactivated Well Royalty Exemption, unless the benefits are revoked by the DOE.

Benefits Disallowed or Revoked

A Crown royalty reduction given under the Horizontal Re-entry Well Royalty Reduction may be partially or entirely disallowed or revoked, or a maintenance volume increased if:

- production from an eligible well that is receiving a royalty reduction has materially reduced the production of another well that is not entitled to benefits under the Horizontal Re-entry Well Royalty Reduction, ***or***
- facts are not disclosed that are pertinent to qualifying for eligibility under the Horizontal Re-entry Well Royalty Reduction, ***or***
- crude oil or oil sands production used to establish the maintenance volume for an eligible well is curtailed during the 12 production months used in calculating the maintenance.

Enhanced Oil Recovery Royalty Relief *(AR 348/93)*

Eligibility

The Enhanced Oil Recovery (EOR) Royalty Relief applies to schemes approved under the *Enhanced Recovery of Oil Royalty Reduction Regulation (AR 348/93)*. A scheme approved under *section 11* of the *Petroleum Royalty Regulation (AR 248/90)* is considered approved under the *Enhanced Recovery of Oil Royalty Reduction Regulation*.

Application for Eligibility

Scheme operators must apply to the DOE for EOR royalty relief under the *Enhanced Recovery of Oil Royalty Reduction Regulation* and to the EUB for scheme approval under *section 26* of the *Oil and Gas Conservation Act*. Detailed procedures for application are described in the "1994 Conventional Enhanced Oil Recovery Royalty Guidelines" available from the DOE.

Benefits

The Crown shares in the allowable incremental costs for an approved scheme. Benefits are granted through a reduction of the monthly crude oil royalty otherwise owed to the Crown for incremental tertiary crude oil produced and recovered from the scheme.

Detailed procedures for administration of EOR royalty relief are described in the "1994 Conventional Enhanced Oil Recovery Royalty Guidelines" available from the DOE.

APPENDIX F. OIL VINTAGE FLOWCHARTS

Appendices F–2 through F–14 set out a number of circumstances under which a well may qualify for third tier or new oil vintage.

THIRD TIER OIL VINTAGE

A.R. 248/90 5.1(1)(2)(3)(4)

Third tier oil is, oil produced in ***segregation*** from other crude oil under the following circumstances:

- If you have a third tier oil holiday you should always have third tier oil vintage for oil from the eligible interval of the third tier exploratory well. **NO EXCEPTIONS**

- If the oil is from a third tier pool you will always have third tier oil vintage. To establish a third tier pool use the EUB field/pool codes to search for *SPUD DATES*. If all wells in the pool are spud on or after October 1, 1992 - You have a third tier pool for your oil.

***** If the EUB makes a decision that results in a pool designation being revoked in whole or in part - the end result being a pool known to exist prior to September 30, 1992 - THIRD TIER POOL STATUS AND ANY RELATED VINTAGE WILL ***END*** THE LAST DAY OF THE MONTH THE THIRD TIER POOL STATUS IS REVOKED.

***** There are ***NO*** co-existent factors for third tier.

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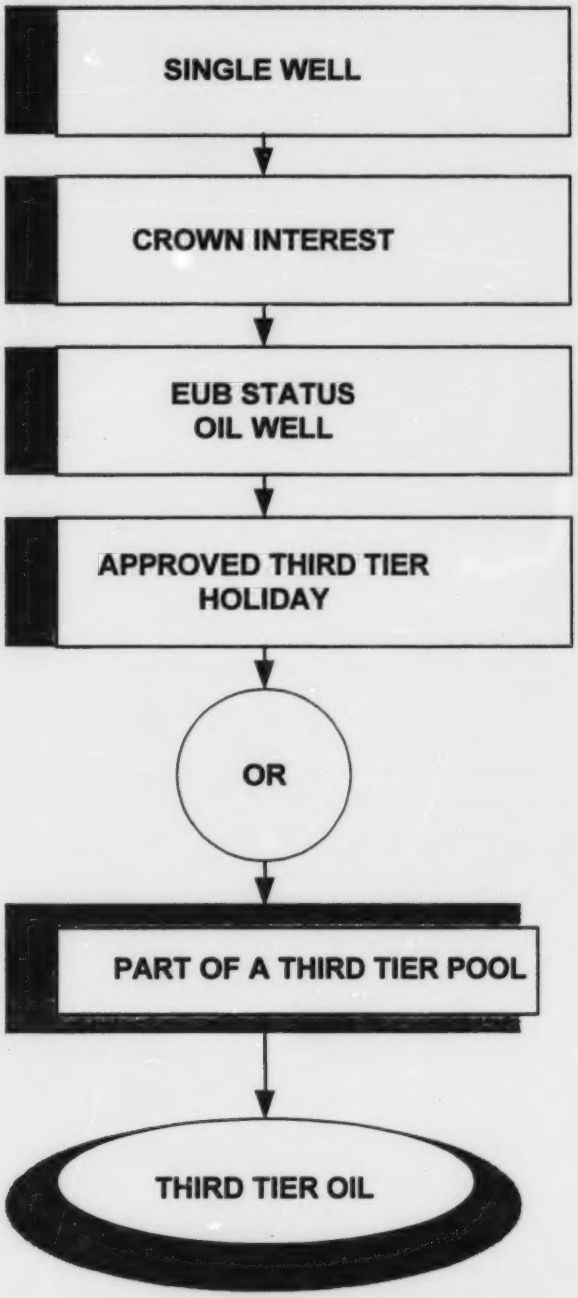
THIRD TIER OIL I.L. 93-09

A.R. 248/90 5.1
(1)(2)(3)(4)



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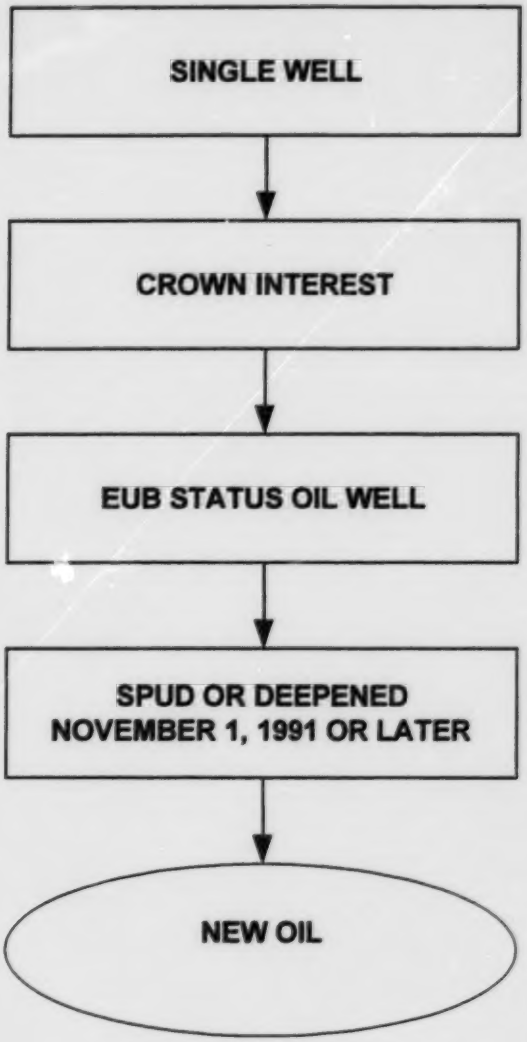
Appendix F-3

NEW OIL I.L. 91-28

A.R. 248/90 5(2-c- i,ii)



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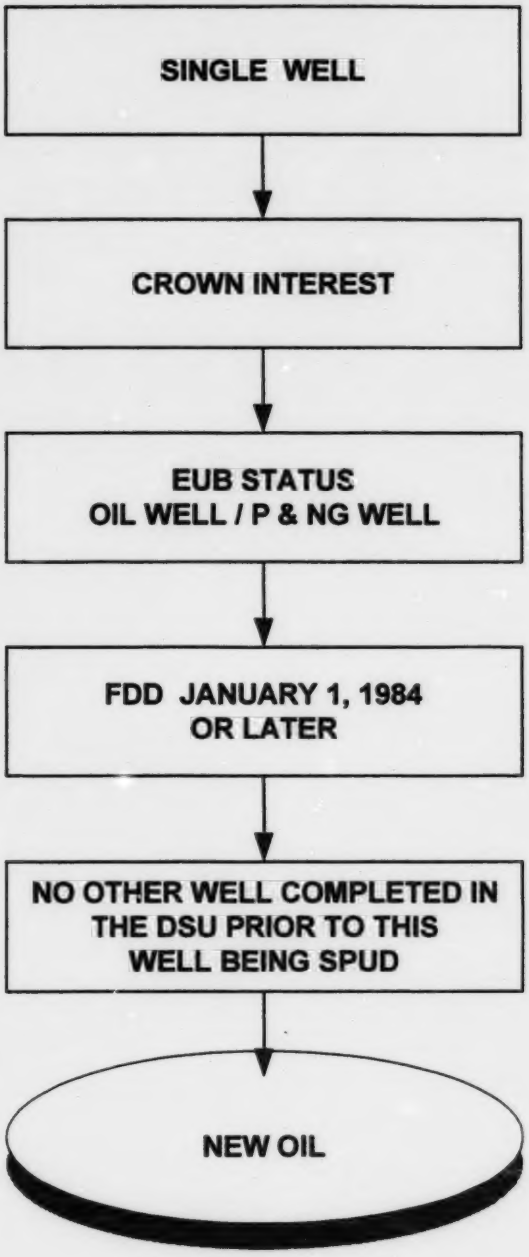
NEW OIL I.L. 84-02

A.R. 248/90 5(3)(I)



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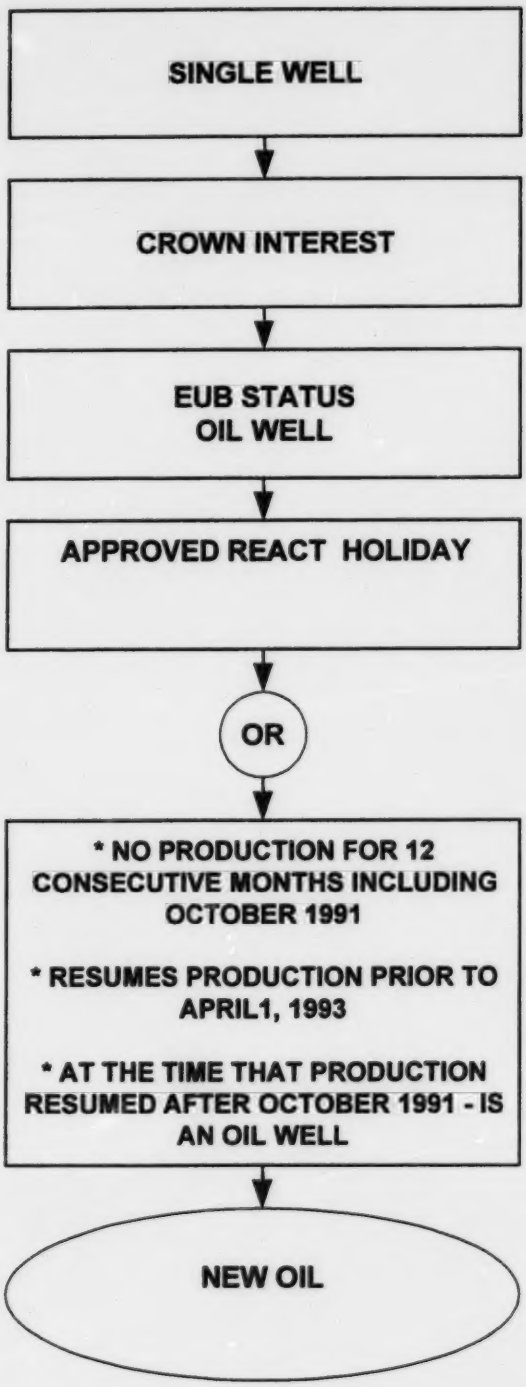
NEW OIL I.L. 93-03



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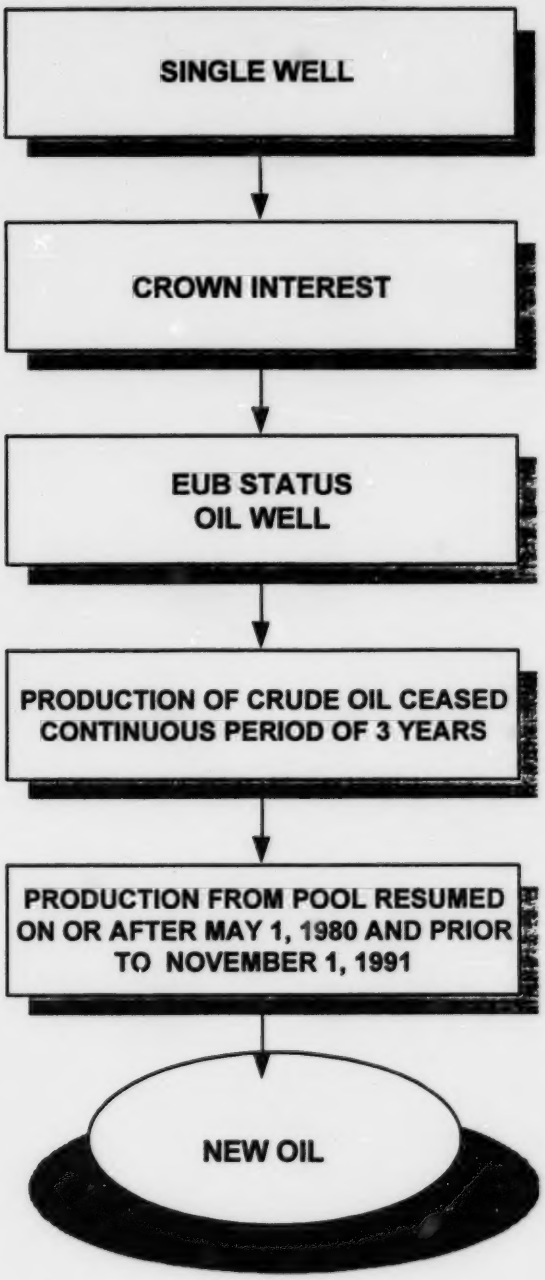
NEW OIL
A.R. 248/90 5(3)(c)



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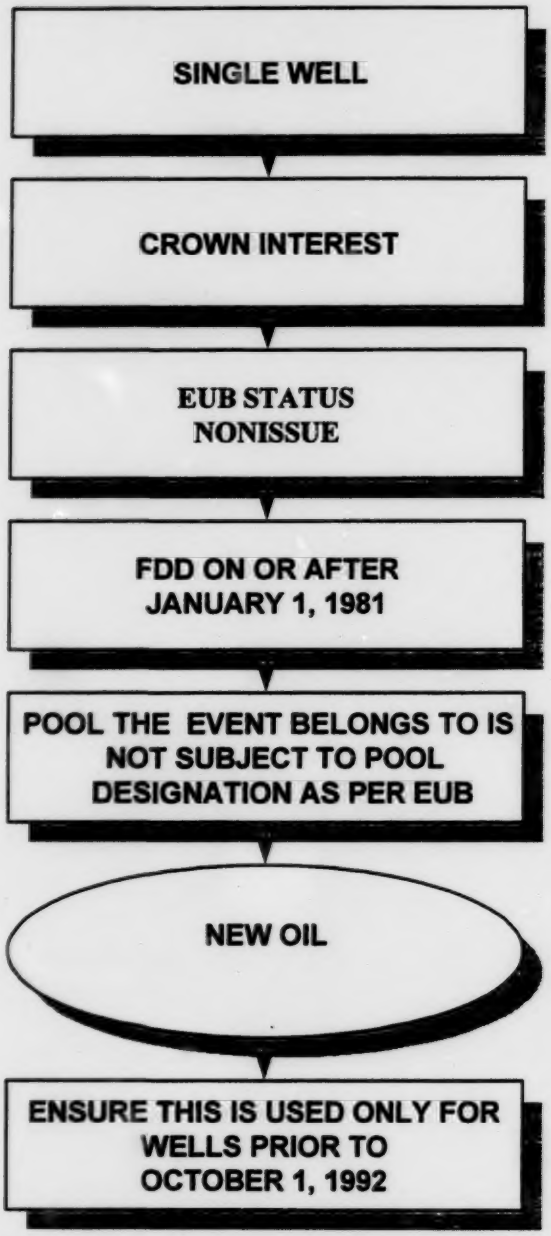
NEW OIL

A.R. 248/90 5(3-d)



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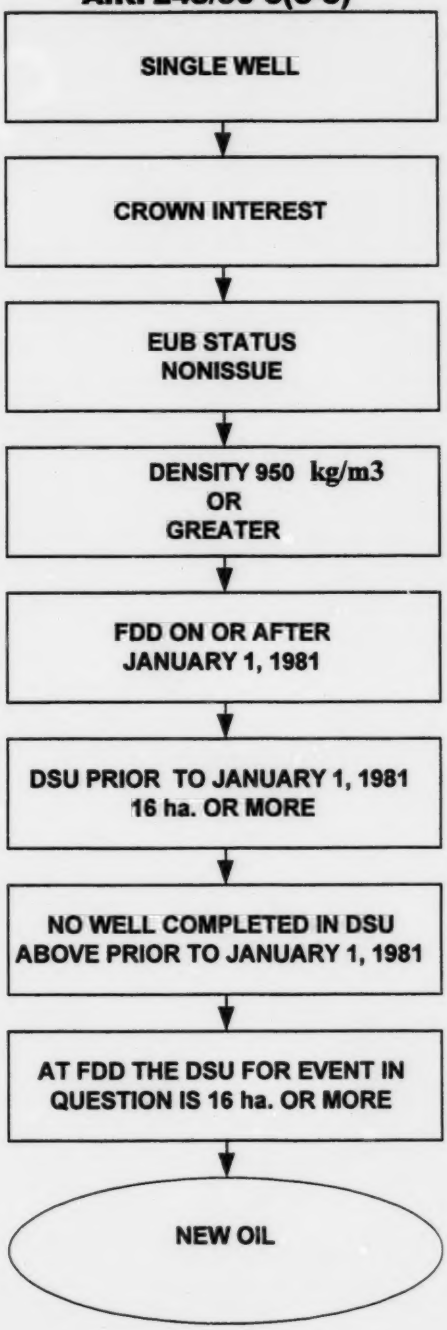
NEW OIL
A.R. 248/90 5(3-e)



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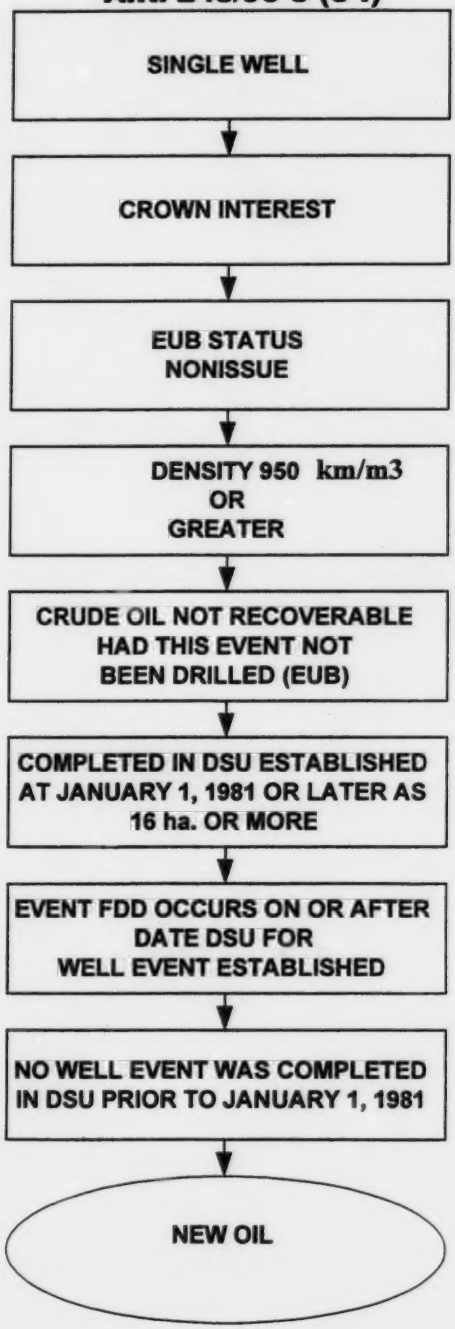
NEW OIL
A.R. 248/90 5 (3-f)



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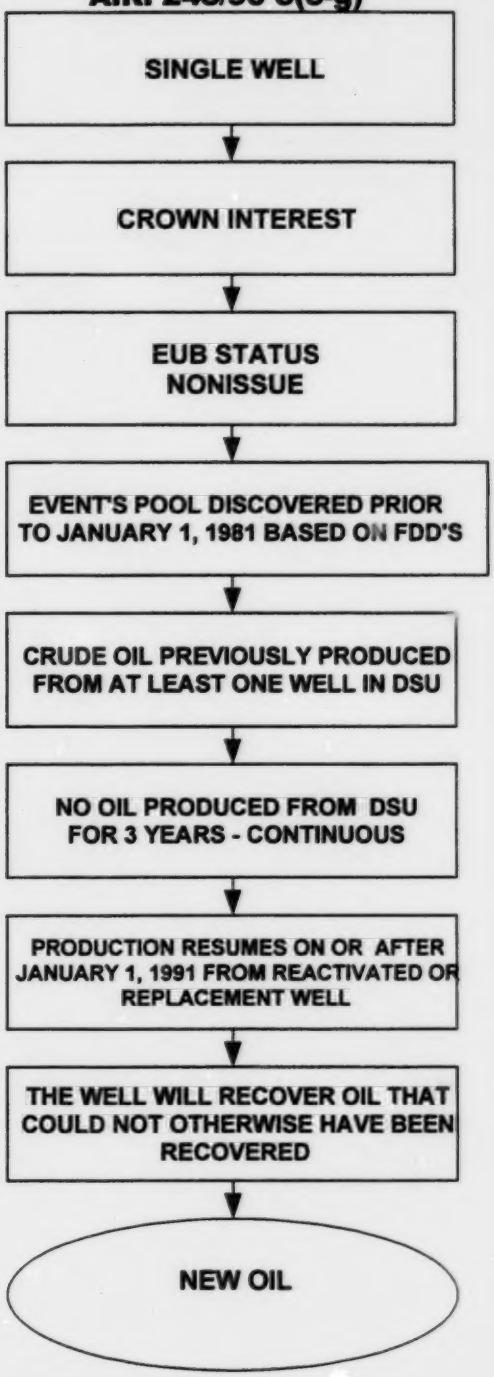
NEW OIL

A.R. 248/90 5(3-g)


SINGLE WELL
CROWN INTEREST
EUB STATUS
NONISSUE
EVENT'S POOL DISCOVERED PRIOR TO JANUARY 1, 1981 BASED ON FDD'S
CRUDE OIL PREVIOUSLY PRODUCED FROM AT LEAST ONE WELL IN DSU
NO OIL PRODUCED FROM DSU FOR 3 YEARS - CONTINUOUS
PRODUCTION RESUMES ON OR AFTER JANUARY 1, 1991 FROM REACTIVATED OR REPLACEMENT WELL
THE WELL WILL RECOVER OIL THAT COULD NOT OTHERWISE HAVE BEEN RECOVERED
NEW OIL

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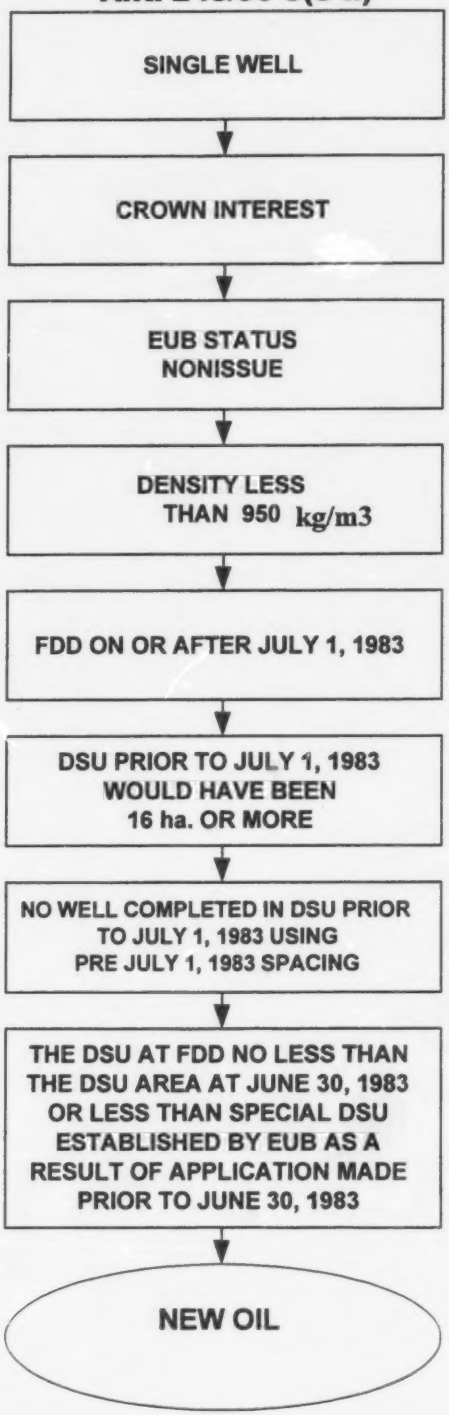
NEW OIL
A.R. 248/90 5(3-h)


SINGLE WELL
CROWN INTEREST
EUB STATUS
NONISSUE
DENSITY LESS
THAN 950 kg/m3
FDD ON OR AFTER JULY 1, 1983
DSU PRIOR TO JULY 1, 1983
WOULD HAVE BEEN
16 ha. OR MORE
NO WELL COMPLETED IN DSU PRIOR
TO JULY 1, 1983 USING
PRE JULY 1, 1983 SPACING
THE DSU AT FDD NO LESS THAN
THE DSU AREA AT JUNE 30, 1983
OR LESS THAN SPECIAL DSU
ESTABLISHED BY EUB AS A
RESULT OF APPLICATION MADE
PRIOR TO JUNE 30, 1983
NEW OIL

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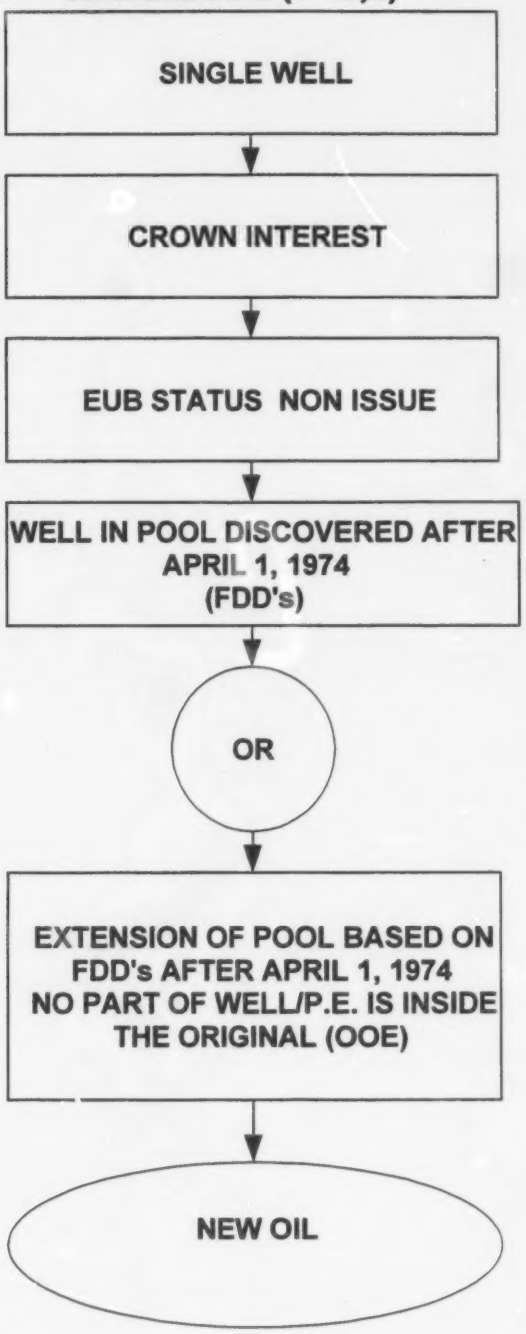
NEW OIL I.L. 74-12

A.R. 248/90 5 (3 - a,b)


SINGLE WELL
CROWN INTEREST
EUB STATUS NON ISSUE
WELL IN POOL DISCOVERED AFTER APRIL 1, 1974 (FDD's)
OR
EXTENSION OF POOL BASED ON FDD's AFTER APRIL 1, 1974 NO PART OF WELL/P.E. IS INSIDE THE ORIGINAL (OOE)
NEW OIL

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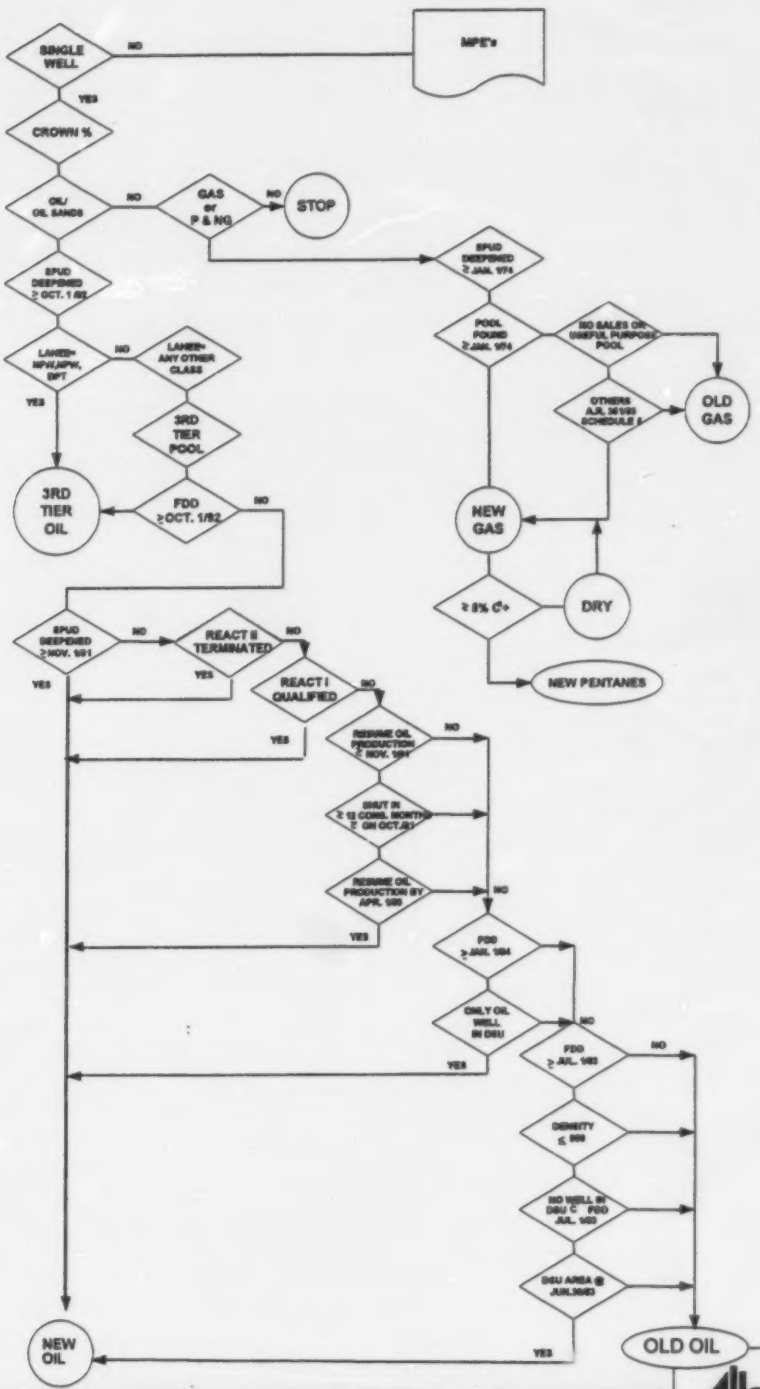
NEW WELL CERTIFICATION DECISION TREE NOVEMBER 1993



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Appendix F-14

APPENDIX G. INFORMATION LETTER 74–12

Subject: Administrative details relating to "New Oil" under the Petroleum Royalty Regulation, AR 93/74, as amended from time to time.

October 2, 1974

INFORMATION LETTER 74-12

SUBJECT: Administrative Details relating to "New Oil" under the Petroleum Royalty Regulation A.R. 93/74; as Amended from Time to Time

This letter describes the concepts and administrative details that the Minister has adopted for "new oil" relative to the Petroleum Royalty Regulations.

I. DEFINITION OF TERMS

In this information letter,

(a) "Board" means the Energy Resources Conservation Board;

(b) "Department" means the Department of Mines and Minerals;

(c) "Minister" means the Minister of Mines and Minerals;

(d) "Regulations" means the Petroleum Royalty Regulations, being Alberta Regulation 93/74 as amended from time to time;

(e) "old oil entity" means a pool or portion thereof, designated by the Board on the basis of wells drilled before April 1, 1974, the crude oil of which is not authorized by the Minister to constitute new oil;

(f) "new oil" means new oil, as defined under the Petroleum Royalty Regulations;

(g) "old oil". means the crude oil to which the greater of the two subsisting royalty factors applies;

(h) "coexistent oil" means crude oil, produced through a well from a single pool, which is authorized by the Minister to constitute a mixture of new oil and old oil in any proportion thereof;

(i) "new oil well" means a new oil well under the Petroleum Royalty Regulations;

(j) "old oil well" means a well that produces old oil exclusively;

(k) "coexistent oil well" means a well that produces coexistent oil;

(l) "drilling spacing unit" and "production spacing unit" mean drilling spacing unit and production spacing unit as defined under the Oil and Gas Conservation Regulations;

(m) "block" means a block as defined under The Oil and Gas Conservation Act;

(n) "project" means a project as defined under The Oil and Gas Conservation Act;

(o) "production entity" means a production entity as defined under the Petroleum Royalty Regulations;

(p) "scheme" means a scheme approved by the Board in accordance with section 38 of The Oil and Gas Conservation Act;

(q) "qualifying scheme" means an enhanced recovery schedule that is authorized

by the Minister to produce coexistent oil pursuant to the Petroleum Royalty Regulations;

(r) "qualifying period" means the period of the producing life of a scheme when the crude oil production from the scheme is authorized by the Minister to constitute coexistent oil;

(s) "recovery factor modifier" means a recovery factor modifier as defined under the Oil and Gas Conservation Regulations;

(t) "licensee" means a licensee as defined under The Oil and Gas Conservation Act, and

(u) "operator" means the operator of a production entity as defined under the Petroleum Royalty Regulations.

II. OLD OIL ENTITY

1. Purpose

Each old oil entity shall be a pool or part thereof from which the crude oil produced will not qualify as "new oil." Crude oil produced from a source located outside an old oil entity will normally be authorized by the Minister, upon application by the operator, to qualify as "new oil" in accordance with the Regulations.

2. Procedures for Defining an Old Oil Entity

(1) Plats or listings will be issued by the Board to identify the area and producing formation of each old oil entity that is apparent to the Board. For most oil pools the old oil entity will correspond to the relevant Board G order as described by wells that penetrated the pool prior to April 1, 1974. The area of an old oil entity is normally fixed and it will not be adjusted on the basis of wells drilled after April 1, 1974.

(2) A number of pool areas have been described by the Board to coincide with field areas. These pools were re-designated by the Board, effective July 1, 1974, in accordance with the normal Board procedures for describing a pool area, and each re-designated version will constitute an old oil entity.

(3) A few pools in the Province consist of a predominantly gas-bearing reservoir within which are localized occurrences of crude oil. In these cases, the entire hydrocarbon reservoir, as defined by Board G order effective April 1, 1974, will constitute an old oil entity.

(4) Some 200 producing or abandoned oil wells in the past have not qualified for pool designation by the Board. Where such a pool is deemed to relate to one well only, its old oil entity will constitute the drilling spacing unit of the well. On the other hand, the area of a multi-well undesignated pool will be described, for old oil entity purposes, in accordance with the normal pool, designation procedures employed by the Board.

3. Appeals Relating to an Old Oil Entity

(1) After a well is licensed, the licensee may submit to the Board an appeal if he is of the opinion that there is a legitimate basis for the Board to adjust the boundary of the old oil entity in order to exclude the well under consideration. The appeal shall be supported by appropriate arguments and technical information.

(2) After completing a well in an old oil entity, the licensee or operator may contend that the

well will produce crude oil exclusively from a pool discovered on or after April 1, 1974, such pool being separate and distinct from the pool used to define the old oil entity. Under these circumstances, the licensee or operator may submit to the Board an application for new oil status. The application shall be accompanied by supporting technical evidence.

The Board shall advise the appellant of its decision, which shall be final.

III. NEW OIL ATTRIBUTED TO THE LOCATION OF A PRODUCTION ENTITY

1. Where the Entire Production Entity is Outside the Old Oil Entity

Section 2 (1) (b) (ii) (B) of the Regulations has been amended to provide that a well located outside an old oil entity and producing from a pool discovered before April 1, 1974, will qualify as a new oil well providing its entire production entity-is outside the old oil entity.

2. Where Part of a Production Entity is Outside and the Remainder is Inside the Old Oil Entity

The Minister may grant coexistent oil well status due to circumstances other than the existence of a qualifying scheme. These circumstances are discussed below.

(1) Where a production spacing unit crosses the boundary of an old oil entity, the well producing the crude oil for the production spacing unit may be authorized by the Minister to produce coexistent oil. The ratio of new oil to old oil produced by the well would correspond to the ratio of that part of the production spacing unit's area outside the old oil entity to the part of its area inside the old oil entity, irrespective of the location of the producing well within the production spacing unit.

(2) Where a block contains production spacing units that produce coexistent oil, the fraction of new oil produced by the block may be determined by summing the new oil-producing areas of all the production spacing units in the block and dividing this sum by the total productive area of the block.

While a block permits flexibility in production operations, the crude oil production within a block shall be distributed between old oil and new oil areas so that a disproportionate share of a block's production does not occur in either area.

(3) Where the area of a project extends beyond the boundary of an old oil entity, the Minister may, for that reason alone, recognize co-existent oil status for the project as a whole. The new oil component of such coexistent oil would reflect the remaining recoverable reserves of new oil located outside the old oil entity along with the new oil, if any, obtainable from inside the old oil entity as the result of a qualifying scheme.

IV. NEW OIL ATTRIBUTED TO A QUALIFYING ENHANCED RECOVERY SCHEME

Section 2 (1) (a) (ii) of the Regulations authorizes the Minister to approve the production of coexistent oil from an old oil entity where certain conditions are met relating to an enhanced recovery scheme approved by the Board.

In this connection, the Regulations have been clarified, where necessary, to be consistent with the administrative details outlined below.

1. Types of Enhanced Recovery Schemes that may Qualify for the Production of Coexistent Oil from an Old Oil Entity

(1) An enhanced recovery scheme will be eligible for the production of coexistent oil if the scheme is approved by the Board by an order dated on or after January 1, 1974, and if the

order authorizes a type of recovery mechanism that has not been either previously instituted or authorized for the scheme by an order dated before January 1, 1974.

(2) An area added to a nonqualifying scheme may be considered for coexistent oil status if the relevant order or amendment thereof is dated on or after January 1, 1974, and if, for the added area, it authorizes a recovery mechanism that has not been either previously instituted or authorized by an order dated before January 1, 1974.

2. Circumstances under which an Enhanced Recovery Scheme,
Will Not Qualify for the Production of Coexistent Oil

A project will not qualify for the production of coexistent oil if the, enhanced recovery scheme was approved bv the Board by an order dated before January 1, 1974, and if the basic recovery mechanism remains unchanged. For example, an application for coexistent oil status would be denied for a waterflood scheme approved before January 1, 1974, even though the recovery efficiency of the scheme is improved after January 1, 1974, by increasing the water injection rates, by changing, the waterflood pattern or by implementing other favourable measures relative to the waterflood operation.

3. Period During Which Coexistent Oil is Recognized for
a Qualifying Scheme

Upon application by the operator, the Minister will recognize coexistent oil for a qualifying scheme as soon as practical after the Board recognizes a recovery factor modifier for the project area in accordance with section 10.150 of the Oil and Gas Conservation Regulations.

4. Determination of the Fraction of Coexistent Oil
Production that Constitutes New Oil Production

The crude oil produced each month by a coexistent oil well is in part new oil with the remainder being old oil. The new oil component is denoted herein by the letter "n". It is expressed as a decimal with three significant figures, and it may vary between zero and unity, inclusive, depending on the circumstances associated with the enhanced recovery scheme.

The formula adopted for the present by the Minister to determine the value of "n" when the coexistent oil status is attributed to a qualifying scheme is remaining recoverable new oil

$n = \frac{\text{remaining recoverable new oil}}{\text{remaining recoverable oil}}$

Expressed symbolically,

$n = \frac{Ri_tN - RiN - Npn}{Ri_tN - Np}$, where

N = initial oil-in-place in stock tank barrels of the qualifying area,

Ri = recovery factor for the prior (usually natural) mechanism, expressed as a decimal with two significant figures,

Ri = recovery factor reflecting the new mechanism and any prior mechanism still in effect, expressed as a decimal with two significant figures,

RiN and Ri_tN = initial recoverable reserves for the qualifying area and associated with Ri and Ri_t,

Npn = cumulative *new* oil production in stock tank barrels for the qualifying area at the time "n" is determined,

Np = cumulative crude oil production in stock tank barrels for the qualifying area at the time "n" is determined, and

$Ri_tN - Np$ = remaining recoverable reserves under the combined mechanisms currently in effect.

The values used in the formula to calculate "n" relate to the qualifying project rather then the entire pool, and they will be established by the Board with due regard for the evidence submitted by an operator and for studies by the Board staff.

5. Revision of the "n" Factor

When, in the opinion of the Board, a change is warranted for the parameters N, Ri or Ri_t associated with the qualifying project, the Minister may recognize a corresponding revision for the "n" factor and adjust the royalty determination accordingly.

Where the request for the revision to the parameters is initiated by the operator, it will be considered by the Minister if it satisfies the terms of Board Informational Letter No. IL 71-14, dated August 5, 1971.

6. Determination of New Oil Fraction for a Project,
During Start-up of an Enhanced Recovery Scheme

When an approved area is commencing enhanced recovery operations, a transition period is involved between the start of injection and the recognition of the recovery factor modifier. The Board provides project status with a primary allowable allocation during start-up operations. For a scheme or a scheme area producing coexistent oil during such a transition period, the new oil fraction shall be determined by using the new oil area and dividing this sum by the area of the project.

V. DETERMINATION OF ROYALTY FOR COEXISTENT OIL

The technique for calculating the royalty for the crude oil produced by a coexistent oil well is illustrated by the following example:

Assume:

Monthly production	5,000 bbls
Par Price	$6.81
Select Price	$4.11
Royalty Factor, old oil	1.939
Royalty Factor, new oil	0.560
"n"	0.333

Calculations:

Royalty for the month if all of the production were old oil	1,998.71 bbls
Royalty for the month if all of the production were new oil	1,380.89.bbls
Royalty for the month for the coexistent oil :	
Old oil component: (1.0 - 0.333) x 1,998.71	1,333.14 bbls
New oil component: 0.333 x 1,380.89	459.84 bbls
Total Royalty for coexistent oil	1,792.98 bbls

VI. APPLICATION FOR "NEW OIL" OR "COEXISTENT OIL" STATUS

Crude oil production will be regarded as old oil for the purpose of royalty calculations until an application by the operator for new oil or coexistent oil status is approved by the Minister.

Each letter of application for new or coexistent oil status shall be directed to the Director of Finance, Department of Mines and Minerals, 9915 - 108th Street, Edmonton, Alberta, T5K 2C9, and a carbon copy of the letter shall be sent to the Manager of the 0il Department of the Board, 603 - 6th Avenue S.W, Calgary, Alberta. T2P OT4.

The letter for each application should contain the following particulars:

(1) regulatory basis for the application and appropriate argument,

(2) identification of the production entity, including the name of the associated field and pool and the legal description and type (p.s.u., block or project) of the production entity,

(3) name and location of the well or wells in the production entity,

(4) date at which the well or wells were licensed, if such date after April 1, 1974,

(5) identification of the crude oil producing zone to which the application applies if such information is not apparent from (2) above,

(6) name and address of operator,

(7) signature of operator's representative, and

(8) date of application.

Where any application is based on the pool being discovered after April 1, 1974, the discovery well and discovery date for the pool should be noted and, if appropriate, the application should indicate the grounds for concluding that the pool is separated from other nearby pools discovered in the same zone before April 1, 1974.

Where the application is for a coexistent oil well, it should indicate which of the following three cases applies:

(1) the production entity for the well is partly inside and partly outside an old oil entity, or

(2) the well is inside a qualifying project and the production from the well is influenced by a qualifying scheme, or

(3) the well qualifies under both (1) and (2) above.

An application for coexistent oil associated with a qualifying, enhanced recovery scheme may elaborate on the technical grounds for the application and it may propose the parameters to be considered for calculating the "n" factor.

The Minister will notify the operator of his decision and, if the application is approved, an appropriate royalty adjustment for the well will be authorized as soon as practical.

Where an question arises pertaining to the interpretation of this Information Letter, the decision of the Board or the Minister, as the case may be, is final.

G. B. Mellon, P. Geol.,
Deputy Minister.

APPENDIX H. ASSOCIATED CROWN ROYALTY DELIVERY REPORTS

Form 1 – Summary of Petroleum Field Deliveries (APMC–120)

Form 2 – Petroleum Field Deliveries (APMC–121)

Report 1 – Operator Royalty Delivery Confirmation Report

Report 2 – Royalty Totals Reconciliation Report

Report 3 – APMC/Operator/DOE Current Month Reconciliation Report

Report 4 – APMC/Operator/DOE Prior Month Reconciliation Report

Report 5 – Invoice

Reports 6-9 – Statement of Contract Deliveries, Royalty and Transportation Allowances

Alberta ENERGY
Alberta Petroleum Marketing Commission

Summary Of Petroleum Field Deliveries

APMC-120

Operator Code	Operator Name	Delivery Period YY	Delivery Period MM

Complete This Section If Submission Is On APMC-121 Form(s)

Total Number Of Lines Completed On Attached APMC-121 Form(s)

Total Crown Royalty Delivered Volume Submitted On Attached APMC-121 Form(s)

Complete This Section If Submission Is On Magnetic Media

Serial Number of Tape/Diskette Being Submitted

Total Number Of Records Submitted On Tape/Diskette

Total Crown Royalty Delivered Volume Submitted On Tape/Diskette

Date Submitted	Submitted By (Name and Telephone Number) - Please Print	Authorized Signature

See Reverse Side For Instructions On Completion And Submission Of This Form

App H, Form 1

97 01

SUMMARY OF PETROLEUM FIELD DELIVERIES **APMC-120**

The APMC -120 form is used by the Alberta Department of Energy to verify total number of lines and volumes of petroleum field deliveries submitted on either APMC-121 forms or magnetic media.

APMC-120 FORM COMPLETION

Original APMC-120 forms must be submitted. Hand written forms must be submitted in ink. Forms completed in pencil will not be accepted.

OPERATOR CODE: the alpha-numeric code assigned by the AEUB to the operator of the producing point(s) being reported to the Commission.

OPERATOR NAME: the AEUB recognized name, corresponding to the operator code, of the operator reporting to the Commission.

DELIVERY PERIOD: the year and month during which the petroleum being reported was delivered. Example 9702.

SUBMISSION ON APMC-121 FORMS: If the submission is made on APMC-121 forms, then complete this section.

Total Number of Lines: the total number of lines completed on the attached APMC-121 forms. Lines with zero volumes should not be included in this total.

Total Crown Royalty Volume: the total crown royalty volume (to the nearest one-tenth of a cubic metre) reported to the Commission on the attached APMC-121 forms

SUBMISSION ON MAGNETIC MEDIA: If the submission is made on magnetic media, then complete this section.

Serial Number: the serial number of the tape/diskette being submitted

Total Number of Records: the total number of records included on the tape/diskette being submitted

Total Crown Royalty Volume: the total crown royalty volume (to the nearest one-tenth of a cubic metre) reported to the Commission on the tape/diskette being submitted

DATE SUBMITTED: the date on which the APMC-120 with APMC-121 forms or magnetic media is submitted to the Commission

SUBMITTED BY:

Name: the name of the person making this submission (please print). This person should be able to answer any questions regarding the information being submitted.

Telephone Number: the telephone number used to reach the person who made this submission

AUTHORIZED SIGNATURE the signature of the person responsible for this information

FORM SUBMISSION

An **original APMC-120 form** must be attached to the completed APMC-121 forms for the current delivery period and must be received at the Calgary office of the Alberta Department of Energy in accordance with the Commission's current Petroleum Industry Reporting Calendar.

Alberta ENERGY
Alberta Petroleum Marketing Commission

Petroleum Field Deliveries

APMC-121

Operator Code	Operator Name

Amending Report			
Date Submitted		Authorized Signature	
Telephone		Name (Print)	

Delivery Period	
YY	MM

Producing Point	Delivery Point			Crown Royalty Delivery		Over-Delivered Royalty
Battery Code	Receiving Battery Code	OR	Pipeline or Terminal Code	Crown Royalty Cubic Metres Delivered	Trucking Allowance $/m³(GST Excluded)	Crown Royalty Cubic Metres Over-Delivered
					$	
Battery Legal: – – – W	Comments:			Comments:		Comments:
					$	
Battery Legal: – – – W	Comments:			Comments:		Comments:
					$	
Battery Legal: – – – W	Comments:			Comments:		Comments:
					$	
Battery Legal: – – – W	Comments:			Comments:		Comments:
					$	
Battery Legal: – – – W	Comments:			Comments:		Comments:
					$	
Battery Legal: – – – W	Comments:			Comments:		Comments:
					$	
Battery Legal: – – – W	Comments:			Comments:		Comments:
					$	
Battery Legal: – – – W	Comments:			Comments:		Comments:
					$	
Battery Legal: – – – W	Comments:			Comments:		Comments:

App H, Form 2

97-01

See Reverse Side For Instructions On Completion And Submission Of This Form

PETROLEUM FIELD DELIVERIES **APMC-121**

The APMC-121 form is used by the Alberta Department of Energy to verify the petroleum field deliveries reported to the Commission during a month.

APMC-121 FORM COMPLETION

OPERATOR CODE: the alpha-numeric code assigned by the AEUB to the operator of the producing point(s) being reported to the Commission.

OPERATOR NAME: the AEUB recognized name, corresponding to the operator code, of the operator reporting to the Commission.

DELIVERY PERIOD: the year and month during which the petroleum being reported was delivered. Example 9702.

AMENDING REPORT: If the APMC-121 form is an original submission, this box should not be completed.

If the APMC-121 form is amending information previously submitted, this box must be completed with the date of submission, the contact name and phone number, and the signature of the contact. Amending APMC-121 forms must be submitted separately for each delivery period. They cannot be submitted on magnetic media, nor can they be submitted by FAX, nor can they be included with current month APMC-121 forms. **An APMC 120 form is not required with amending APMC-121 forms.** Amendments are made by reversing the old information on one line (use brackets <> around old information) and indicating the new information on the line(s) immediately following. If claiming back over-delivered volumes, put volume being claimed in the Over-Delivered Royalty column. Please indicate in the appropriate comment section the reason for the amendment.

PRODUCING POINT: For each producing point being reported, complete as follows:

Battery Code: the 5 or 7-digit code assigned by the AEUB designating the producing point battery
Battery Legal: the LSD, section, township, range and meridian where the producing point is located

DELIVERY POINT: For deliveries reported to the Commission, indicate where the delivery was made as follows:

If the delivery was made directly to the pipeline or to a terminal or cleaning plant on a pipeline:

Receiving Battery Code: leave blank
Pipeline or Terminal Code: the APMC-assigned numerical code for the pipeline, terminal or cleaning plant to which delivery was made
Comments: the name of the pipeline, terminal or cleaning plant to which the delivery was made

OR

If the delivery was made to a battery that is directly connected to a pipeline:

Receiving Battery Code: the 5 or 7-digit AEUB battery code designating the battery receiving the delivery
Pipeline or Terminal Code: leave blank
Comments: the legal description or name of the operator of the battery receiving the delivery

CROWN ROYALTY DELIVERY: Indicate the volume reported to the Commission and the trucking allowance as follows:

Crown Royalty Cubic Metres Delivered: the volume being reported to the Commission. Report to the nearest one-tenth of a cubic metre.

Trucking Allowance: the cost **per cubic metre** incurred by the operator for moving clean and marketable crown royalty oil in an uninterrupted manner to the delivery point. Costs must **not** include Goods and Services Tax.

OVER-DELIVERED ROYALTY: This column should only be used when the form is an amending APMC-121 and only when the amendment is claiming back over-delivered royalty.

FORM SUBMISSION

An **original APMC-120 form** must be attached to the completed APMC-121 forms for the current delivery period and must be received at the Calgary office of the Alberta Department of Energy in accordance with the Commission's current Petroleum Industry Reporting Calendar.

Alberta PETROLEUM MARKETING COMMISSION

98/02/20 16:47
Page: 1

250140 250791V1
User: LEET
Ref:

Operator Royalty Delivery Confirmation Report
Delivery Month: 9801

Company Code: 999 Company Name: Any Company Ltd.

Producing Battery	- Delivery Point- Battery	PL/Term	Delivered Volume	Reference Number	Reason Changed	Battery Change Cross Reference
11111		889	14.3	842988		
22222		948	92.3	842987	Operator reported incorrect delivery point	
33333		948	110.8	842990	Operator reported incorrect delivery point	
44444		881	1.8	842989		
			0.0			
Total 121 Submissions			219.2			
Total APMC Confirmation						

App H, Report 1

Alberta PETROLEUM MARKETING COMMISSION

250140 276526V4
User: LEET
Ref:

Royalty Totals Reconciliation Report
As At 980225

Forward to:
98/02/20 17:40
Page: 1

Operator Any Company Ltd.

Total Current Month Approved Royalty	130.7
Total Current Month Unapproved Royalty	0.0
Total Current Month Crown Royalty	130.7

Prior Months	Approved Royalty Adjustments	Unapproved Royalty	Total Royalty
Prior Totals	0.0	0.0	0.0

App H, Report 2

Alberta PETROLEUM MARKETING COMMISSION

250140 276525V7
User: LEET
Ref:

APMC/Operator/DOE Current Month Reconciliation Report
As At 98/02/25 For Delivery Months up to 9712

98/02/20 17:36
Page: 1

Forward to:

Operator Code: 999 Operator Name: Any Company Ltd.

Producing Battery	Month	Previous Net Royalty	Current Net Royalty	DOE Adjustment	Delivered Volume	Invoiced Volume	Prior Month Collections	Future Month Collections	DIFFERENCE	Non-Royalty Deliveries
55555	9712		0.0		0.0				0.0	
66666	9712		15.8		15.8				0.0	
77777	9712		112.7		112.7				0.0	
88888	9712		2.2		2.2				0.0	
Total for Any Company Ltd.			130.7		130.7				0.0	

Add H. Report 3

Alberta PETROLEUM MARKETING COMMISSION

250140 276525V7
User: LEET
Ref:

APMC/Operator/DOE Prior Month Reconciliation Report
As At 98/02/25 For Delivery Months up to 9712

98/02/20 17:36
Page: 2

Forward to:

Operator Code: 999 Operator Name: Any Company Ltd.

Producing Battery	Month	Previous Net Royalty	Current Net Royalty	DOE Adjustment	Delivered Volume	Invoiced Volume	Prior Month Collections	Future Month Collections	DIFFERENCE	Non-Royalty Deliveries
99999	9508		4.2		4.3				-0.1	
101010	9710		13.1		18.5				-5.4	
1111111	9503		3.3		3.4				-0.1	1.3
Total for Any Company Ltd.									-5.6	

An asterisk (*) indicates that this battery has been changed since the reconciliation statements were last run.

App H, Report 4

Alberta PETROLEUM MARKETING COMMISSION
300, 801 - 6 Avenue S.W., Calgary Alberta, T2P 3W2 Tel. (403) 297-8955 Fax (403) 297-8954

INVOICE

To:
Any Company Ltd.
CALGARY, ALBERTA

Invoice Date: February 9, 1998

Invoice No.: 12805

Company Code: 999

Terms: **Please make remittance payable to Alberta Petroleum Marketing Commission.**
Payment due on receipt

Description	Amount
Total Transportation Allowance per Statement	$28,506.68-
Total Royalty Underdeliveries per Statement	$181,167.73
For information contact	**Total** $152,661.05

Please note Invoice Number on all remittances or inquiries

Alberta PETROLEUM MARKETING COMMISSION

306001 306512
User: BRAHMAR
Ref:

Statement of Contract Deliveries, Royalty, and Transportation Allowances
For 98/02/09

98/03/12 15:27
Page: 1

Document: I12805

Company: Any Company Ltd.

Delivery Period: 97/09

Producing Battery	Delivery Point- Battery	PL/Term	Volume	Price	Value	Reason Changed
Transportation Allowance						
12121212		872	0.6	7.99	$4.79	Volume changed-operator amendment
Transportation Allowance Total:					$4.79	
Delivery Month Total:					$4.79	

App H, Report 6

Alberta PETROLEUM MARKETING COMMISSION

98/03/12 15:27
Page: 2

306001 306512
User: BRAHMAR
Ref:

Statement of Contract Deliveries, Royalty, and Transportation Allowances
For 98/02/09

Document: I12805

Company: Any Company Ltd.

Delivery Period: 97/10

Producing Battery	Delivery Point-Battery	PL/Term	Volume	Price	Value	Reason Changed
Transportation Allowance						
31111	898		25.4	13.00	$330.20	Volume changed-operator amendment
41111	898		1.7	13.00	$22.10	Volume changed-operator amendment
51111	898		529.2	13.00	$6,379.60	Volume changed-operator amendment
61111	867		154.4	13.00	$2,007.20	Volume changed-operator amendment
71111	867		3.2	13.00	$41.60	Volume changed-operator amendment
Transportation Allowance Total:					$9,280.70	
Royalty Underdeliveries						
81111	898		(25.4)	163.71	($4,158.23)	
	898		25.4	163.71	$4,158.23	
	898		(25.4)	163.71	($4,158.23)	Trucking rate changed per operator amendment
10102	898		(1.7)	173.23	($294.49)	
	898		1.7	173.23	$294.49	
	898		(1.7)	173.23	($294.49)	Trucking rate changed per operator amendment
10105	898		(529.2)	164.13	($86,857.60)	
	898		529.2	164.13	$86,857.60	
	898		(529.2)	164.13	($86,857.60)	Trucking rate changed per operator amendment
Royalty Underdeliveries Total:					($91,310.32)	
Delivery Month Total:					($82,029.62)	

App H, Report 7

Alberta PETROLEUM MARKETING COMMISSION

306001 306512
User: BRAHMAR
Ref:

Statement of Contract Deliveries, Royalty, and Transportation Allowances
For 98/02/09

98/03/12 15:27
Page: 3

Document: I12805

Company: Any Company Ltd.

Delivery Period: 97/11

Producing Battery	-Delivery Point- Battery	PL/Term	Volume	Price	Value	Reason Changed
Transportation Allowance						
32222		898	47.6	13.00	$618.80	Volume changed-operator amendment
42222		898	3.3	13.00	$42.90	Volume changed-operator amendment
52222		898	528.2	13.00	$6,866.60	Volume changed-operator amendment
62222		867	104.5	13.00	$1,358.50	Volume changed-operator amendment
72222		867	8.1	13.00	$105.30	Volume changed-operator amendment
82222		872	0.6	13.00	$7.80	Volume changed-operator amendment
		872	(0.6)	13.00	($7.80)	
		872	0.6	7.99	$4.79	Volume changed-operator amendment
Transportation Allowance Total:					$8,996.89	
Royalty Underdeliveries						
34343		898	(47.6)	154.73	($7,365.15)	
		898	47.6	154.73	$7,365.15	
		898	(47.6)	154.73	($7,365.15)	Trucking rate changed per operator amendment
63636		898	(3.3)	164.25	($542.03)	
		898	3.3	164.25	$542.03	
		898	(3.3)	164.25	($542.03)	Trucking rate changed per operator amendment
93939		898	(528.2)	155.15	($81,950.23)	
		898	528.2	155.15	$81,950.23	
		898	(528.2)	155.15	($81,950.23)	Trucking rate changed per operator amendment
Royalty Underdeliveries Total:					($89,857.41)	
Delivery Month Total:					($80,860.52)	

App H, Report 8

Statement of Contract Deliveries, Royalty, and Transportation Allowances
For 98/02/09

Document: I12805

Company: Any Company Ltd.

Delivery Period: 97/12

Producing Battery	Delivery Point- Battery	PL/Term	Volume	Price	Value	Reason Changed
Transportation Allowance						
37777		835	37.7	13.00	$490.10	Volume changed-operator amendment
47777		835	0.2	13.00	$2.60	Volume changed-operator amendment
57777		835	580.7	13.00	$7,549.10	Volume changed-operator amendment
67777		867	149.5	13.00	$1,943.50	Volume changed-operator amendment
77777		867	18.2	13.00	$236.60	Volume changed-operator amendment
87777		872	0.3	7.99	$2.40	Volume changed-operator amendment
Transportation Allowance Total:					$10,224.30	
Delivery Month Total:					$10,224.30	

STATEMENT TOTAL:

Total Transportation Allowance	$28,506.68
Total Royalty Underdeliveries	($181,167.73)
Grand Total	($152,661.05)

App H, Report 9

ALBERTA

ENERGY

MINERAL REVENUES SYSTEM

CRUDE OIL CROWN ROYALTY STATEMENT 1998 01 11

SUMMARY FOR CURRENT PROCESSING PERIOD Page 01

ABC OIL COMPANY 999

ALL VOLUMES ARE M3

DESCRIPTION	GROSS CROWN ROYALTY	CROWN ROYALTY REDUCTION	NET CROWN ROYALTY
CURRENT MONTH CROWN ROYALTY – 1997 11	10,654.6	2,366.1	8,288.5
PRIOR PERIOD ADJUSTMENTS – 1997 08	266.6	0.0	266.6
	10,921.2	2,366.1	
NET CROWN ROYALTY LIABILITY >>>>>>>>>>>>>>>>>>	>>>>>>>>>>>>>>	>>>>>>>>>>>>	8,555.1

ALBERTA

ENERGY

MINERAL REVENUES SYSTEM

CRUDE OIL CROWN ROYALTY STATEMENT 1998 01 11

CURRENT MONTH SUMMARY FOR 1997 11 Page 01

ABC OIL COMPANY 999

ALL VOLUMES ARE M3

BATTERY CODE	TOTAL PRODUCTION	CROWN PRODUCTION	GROSS CROWN ROYALTY	CROWN ROYALTY REDUCTION	NET CROWN ROYALTY
0000001	506.9	506.9	49.7	49.7	0.0
0000002	95.0	95.0	3.3	0.0	3.3
0000003	21,197.8	21,197.8	4,530.3	871.9	3,658.4
0000004	27.8	27.8	1.0	0.0	1.0
0000005	90.2	90.2	5.7	0.0	5.7
0000006	16,287.3	16,287.3	3,033.1	991.3	2,041.8
0000007	14,560.3	14,560.3	3,031.5	453.2	2,578.3
TOTALS	52,765.3	52,765.3	10,654.6	2,366.1	8,288.5
EFFECTIVE NET CROWN ROYALTY RATE >>>>>>>>>>>>>>>>>				>>>>>>>>>>>	15.71%

MINERAL REVENUES SYSTEM

ALBERTA

ENERGY

CRUDE OIL CROWN ROYALTY STATEMENT

1998 01 11

CURRENT MONTH DETAIL FOR 1997/11

ABC Oil Company

OPER 999 BATTERY 0000006

ALL VOLUMES ARE M3

UNIQUE WELL IDENT.	TOTAL PROD	CROWN PERCENT	CROWN PROD	"A" FAC.	DEN	GROSS CROWN ROYALTY OLD OIL	GROSS CROWN ROYALTY NEW OIL	GROSS CROWN ROYALTY 3RD TIER	CROWN ROYALTY REDUCTION OLD OIL	CROWN ROYALTY REDUCTION NEW OIL	CROWN ROYALTY REDUCTION 3RD TIER	CD	NET CROWN ROYALTY OLD OIL	NET CROWN ROYALTY NEW OIL	NET CROWN ROYALTY 3RD TIER	TOTAL
00-00-00-000-00W0-0	176.9	100.0000000	176.9	1.000	L	0.0	21.9	0.0	0.0	0.0	0.0		0.0	21.9	0.0	21.9
00-00-00-000-00W0-0	211.1	100.0000000	211.1	0.000	L	55.1	0.0	0.0	0.0	0.0	0.0		55.1	0.0	0.0	55.1
00-00-00-000-00W0-0	234.9	100.0000000	234.9	1.000	L	0.0	35.2	0.0	0.0	21.8	0.0	46	0.0	13.4	0.0	13.4
00-00-00-000-00W0-0	37.8	100.0000000	37.8	0.000	L	1.8	0.0	0.0	0.0	0.0	0.0		1.8	0.0	0.0	1.8
00-00-00-000-00W0-0	480.5	100.0000000	480.5	0.000	L	165.1	0.0	0.0	0.0	0.0	0.0		165.1	0.0	0.0	165.1
00-00-00-000-00W0-0	342.5	100.0000000	342.5	0.000	L	108.8	0.0	0.0	0.0	0.0	0.0		108.8	0.0	0.0	108.8
00-00-00-000-00W0-0	76.7	100.0000000	76.7	1.000	L	0.0	4.1	0.0	0.0	0.0	0.0		0.0	4.1	0.0	4.1
00-00-00-000-00W0-0	129.7	100.0000000	129.7	0.000	L	21.6	0.0	0.0	0.0	0.0	0.0		21.6	0.0	0.0	21.6
SUB-TOTALS	16287.3		16287.3			909.1	2124.0	0.0	0.0	21.8	0.0		909.1	2102.2	0.0	3011.3
E.O.R. INCENTIVE VOLUMES - SEE SUMMARY SCHEDULE									143.4	826.1	0.0		143.4	826.1	0.0	969.5
TOTAL BATTERY									143.4	847.9	0.0		765.7	1276.1	0.0	2041.8

NOTES:

(1) ONLY THOSE CROWN ROYALTY HOLIDAYS/INCENTIVES GIVEN UP AS VOLUMES ARE INCLUDED IN "CROWN ROYALTY REDUCTION"

(2) BATTERY TOTALS ARE CARRIED FORWARD TO "CURRENT MONTH SUMMARY" STATEMENT

MINERAL REVENUES SYSTEM

ALBERTA

ENERGY

CRUDE OIL CROWN ROYALTY STATEMENT — 1998 01 11

SUMMARY – CURRENT MONTH EOR RELIEF FOR 1997 11 — Page 01

ABC OIL COMPANY 999

ALL VOLUMES ARE M3

OPER CODE	BATTERY CODE	SCHEME	CROWN ROYALTY REDUCTION THIRD TIER	OLD OIL	NEW OIL	TOTAL
999	0000006	777777	0.0	143.4	826.1	969.5

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NOTES:

(1) BATTERY TOTALS ARE CARRRIED FORWARD TO CURRENT MONTH DETAIL SATEMENT
(2) SEE SCHEME LEVEL EOR RELIEF DETAILS FOR CURRENT MONTH STATEMENT

MINERAL REVENUES SYSTEM

ALBERTA

CRUDE OIL CROWN ROYALTY STATEMENT 1998 01 11

ENERGY

SCHEME LEVEL EOR RELIEF DETAILS FOR CURRENT MONTH 1997 11

999 ABC OIL COMPANY

ALL VOLUMES ARE M3

		CROWN ROYALTY				EOR RELIEF				WELLS TIED TO SCHEME/BATTERY	
SCHEME	BATTERY CODE	3RD TIER	OLD OIL	NEW OIL	RELIEF RATIO	3RD TIER	OLD OIL	NEW OIL	TOTAL	UNIQUE WELL IDENT.	UNIQUE WELL IDENT.
777777	0000006	0.0	300.0	1,727.8	0.4781043	0.0	143.4	826.1	969.5	00-00-00-000-00X-0	00-00-00-000-00X-0
										00-00-00-000-00X-0	00-00-00-000-00X-0
										00-00-00-000-00X-0	00-00-00-000-00X-0
										00-00-00-000-00X-0	00-00-00-000-00X-0
										00-00-00-000-00X-0	00-00-00-000-00X-0
										00-00-00-000-00X-0	00-00-00-000-00X-0
										00-00-00-000-00X-0	00-00-00-000-00X-0
										00-00-00-000-00X-0	00-00-00-000-00X-0
										00-00-00-000-00X-0	00-00-00-000-00X-0

OIL ROYALTY BENEFIT ADJUSTMENT CODES

CODE #	DESCRIPTION
13	PARTIAL EXEMPTION
14	EXPERIMENTAL CONVENTIONAL
34	EXPERIMENTAL CONVENTIONAL - NO REDUCTION
36	HORIZONTAL WELL
37	REACTIVATED EXEMPTION (60 CALENDAR MONTHS)
38	DEVELOPMENT EXEMPTION
39	EXPLORATORY EXEMPTION
46	HORIZONTAL RE-ENTRY REDUCTION
47	REACTIVATED (2) EXEMPTION ($8,000m^3$)
49	EXPLORATORY 3RD TIER EXEMPTION
55	LOW PRODUCTIVITY REDUCTION

Alberta ENERGY